June, 1949

EDISON ELECTRIC INSTITUTE BULLETIN

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PUBLISHED MONTHLY BY EDISON ELECTRIC INSTITUTE

ELECTRICAL RESEARCH STATISTICS
THE ELECTRIC LIGHT AND POWER INDUSTRY

Current Statistical Data Covering 100 Per Cent of Industry

March, 1948-1949

SOURCE AND DISPOSAL OF ENERGY—MONTH OF MARCH

	1949	1948	%
GENERATION* (Net)			
By Fuel Burning Plants	16,584,948,000	16,004,793,000	+ 3.6
By Water Power Plants	8,136,299,000	7,473,275,000	+ 8.9
Total Generation	**24,721,247,000**	**23,478,068,000**	**+ 5.3**
Add—Net Imports Over International Boundaries	113,000,000	87,109,000	+29.7
Less—Company Use	131,758,000	136,517,000	− 3.5
Less—Energy Used by Producer	384,323,000	439,552,000	−12.6
Net Energy for Distribution	**24,318,166,000**	**22,989,108,000**	**+ 5.8**
Losses and Unaccounted for	3,436,509,000	3,019,708,000	+13.8
Sales to Ultimate Customers	**20,881,657,000**	**19,969,400,000**	**+ 4.6**

CLASSIFICATION OF SALES

NUMBER OF CUSTOMERS—As of March 31st			
Residential or Domestic	33,966,550	32,010,334	+ 6.1
Rural (Distinct Rural Rates)	1,692,789	1,561,240	+ 8.4
Commercial or Industrial:			
Small Light and Power	5,144,899	4,998,205	+ 2.9
Large Light and Power	226,819	193,285	+17.3
Other Customers	143,100	136,516	+ 4.8
Total Ultimate Customers	**41,174,157**	**38,899,580**	**+ 5.8**
KILOWATTHOUR SALES—During Month of March			
Residential or Domestic	5,006,422,000	4,391,409,000	+14.0
Rural (Distinct Rural Rates)	465,423,000	458,150,000	+ 1.6
Commercial or Industrial:			
Small Light and Power	3,709,250,000	3,496,545,000	+ 6.1
Large Light and Power	10,303,821,000	10,196,787,000	+ 1.0
Street and Highway Lighting	228,947,000	213,556,000	+ 7.2
Other Public Authorities	536,475,000	531,313,000	+ 1.0
Railways and Railroads:			
Street and Interurban Railways	352,260,000	382,482,000	− 7.9
Electrified Steam Railroads	227,379,000	240,311,000	− 5.4
Interdepartmental	51,680,000	58,847,000	−12.2
Total to Ultimate Customers	**20,881,657,000**	**19,969,400,000**	**+ 4.6**
Revenue from Ultimate Customers	**$382,149,900**	**$354,843,800**	**+ 7.7**

RESIDENTIAL OR DOMESTIC SERVICE

AVERAGE CUSTOMER DATA—For 12 months ended March 31st			
Kilowatthours per Customer	1,597	1,479	+ 8.0
Average Annual Bill	$47.75	$45.11	+ 5.9
Revenue per Kilowatthour	2.99¢	3.05¢	− 2.0

(*) By Courtesy of the Federal Power Commission.

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EDISON ELECTRIC INSTITUTE BULLETIN

Volume 17 JUNE, 1949 No. 6

Vigorous, Forthright Speeches Win Industry Acclaim at 17th Annual EEI Convention

Elmer L. Lindseth Becomes Institute President;
L. V. Sutton Elected Vice President

LEAVING a strong impression that the electric industry is more determined than ever to protect the economic system under which it and the nation have made such unparalleled progress, twenty-four distinguished business and professional leaders presented their views on a variety of economic, financial, and operating subjects at the Institute's extremely well-attended 17th Annual Convention, held in Atlantic City, N. J., from May 31st to June 2nd.

The Convention, which set a new high for the vigor of opinions expressed and for the forthrightness with which the industry's problems were approached, was also marked by one of the largest attendances in EEI history, with over 2,700 representatives of the industry present.

Dynamic, Progressive Industry Cited

The essentially dynamic and progressive qualities of the electric industry were brought out time and again, in the discussions of such vital general topics as socialism vs. free enterprise, changing economic conditions, and public and employee relations, as well as in the treatment of specific areas of operation, such as engineering, rates, financing, and sales. Ten of the addresses appear in this issue of the BULLETIN; the remainder will be carried in the succeeding issue.

Elmer L. Lindseth, president of The Cleveland Electric Illuminating Company, Cleveland, Ohio, was elected President of the Institute at the Convention, succeeding Ernest R. Acker, president of Central Hudson Gas and Electric Corporation, Poughkeepsie, New York.

After having been presented to the delegates as the Institute's new President on Thursday morning, Mr. Lindseth led a rising vote of thanks to Mr. Acker for the excellent and untiring leadership he provided during his term of office.

The Institute's new Vice President, also elected at the annual meeting, is L. V. Sutton, president of Carolina Power and Light Company, Raleigh, N. C. In elections to the Board of Directors, fourteen electric company executives were chosen, their terms to expire in 1952. L. M. Klauber, chairman of the board of San Diego Gas and Electric Company, San Diego, Calif., was elected to serve as a Director for one year, replacing Hance H. Cleland, retired board chairman of San Diego Gas and Electric, whose term as Institute Director was to expire in 1950.

OFFICERS OF EEI
1949-1950

E. L. LINDSETH, *President*
The Cleveland Electric
Illuminating Company
Cleveland, Ohio

L. V. SUTTON, *Vice President*
Carolina Power and Light
Company
Raleigh, North Carolina

H. S. BENNION, *Vice President*
and Managing Director
420 Lexington Avenue
New York 17, N. Y.

K. B. CRUMB, *Treasurer*
American Gas and Electric
Service Corporation
New York, N. Y.

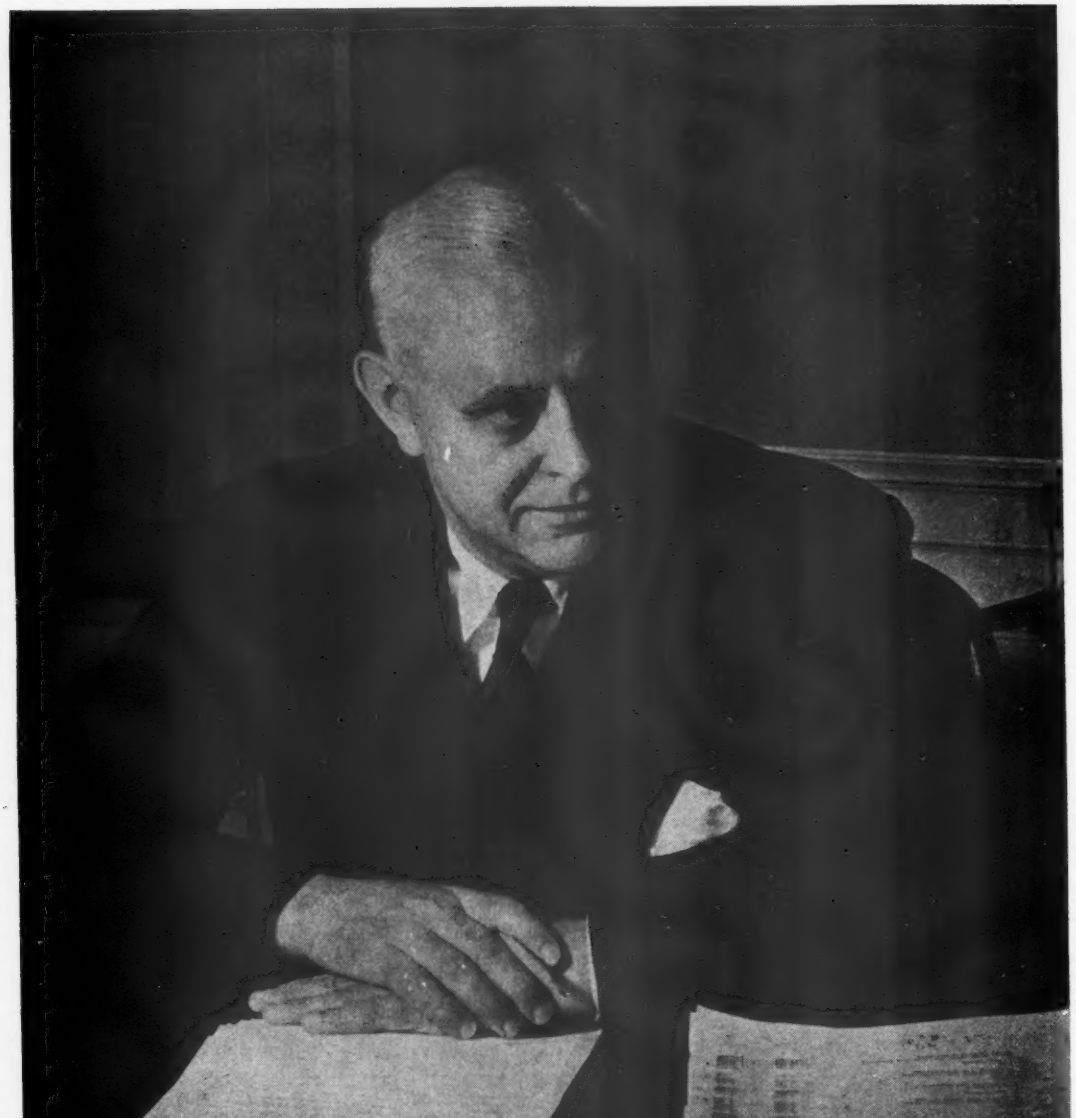
MAE B. WOODS, *Secretary*
420 Lexington Avenue
New York 17, N. Y.

Beginning on Tuesday afternoon with the first general session, the Convention's business was accomplished in three general sessions and four parallel sessions, the latter covering specific problems of engineering, rates, accounting, and commercial activities. In addition, the Board of Directors held a luncheon meeting at noontime on Wednesday.

Coffin Medal Awarded

On Thursday night, at the Institute's buffet supper climaxing the Convention activities, formal presentation of the Charles A. Coffin Award for 1948 was made to Union Electric Company of Missouri, St. Louis, Mo. Honorable Mention certificates were awarded to The Detroit Edison Company, Detroit, Mich.; The Cincinnati Gas and Electric Company, Cincinnati, Ohio; and Southern California Edison Company, Los Angeles, Calif. Full details of the presentation ceremonies are carried elsewhere in this issue of the BULLETIN.

In closing the third general session on Thursday morning, Mr. Acker made a brief speech of appreciation on behalf of the delegates and himself to those who had contributed to the success of the Convention. He singled out for particular



ELMER L. LINDSETH

Newly Elected President of the Edison Electric Institute

EEI's NEW PRESIDENT

WITH a record of progress from junior boiler tester to the top post in one of the country's largest operating companies in a space of 19 years, the youngest man ever selected for the honor and the labor of heading the Edison Electric Institute characteristically gives major credit for his rise to the opportunity available under America's capitalistic system.

Elmer Lincoln Lindseth, who succeeds retiring President Ernest R. Acker, was born in Chicago on February 12, 1902. His parents came to the United States from Sweden shortly before the turn of the century, his father being a blacksmith who later became a foreman with the New York Central System in Cleveland.

Mr. Lindseth began to take advantage of capitalism's opportunities when he was graduated from a Cleveland high school at 16. He earned a scholarship to Case Institute of Technology and commenced his study of engineering. After two years he transferred to Miami University of Oxford, O., on another scholarship, and was graduated in 1923 with a Bachelor of Arts degree.

He then returned to Case Institute on a fellowship and took a Bachelor of Science degree in 1925, after compiling the highest scholastic record in his class. He spent the next year at Yale University, on a teaching fellowship, and earned a Master of Science degree.

Mr. Lindseth's first association with the company he was later to head came in 1924, when he worked as a boiler test helper during his summer vacation. He was a junior tester when he joined the company in 1926.

While at Yale he received a "break" which proved important in his later career. He assisted Walter Wohlenberg, now dean of engineering at Yale, in the preparation of a highly technical paper on boiler radiation. Mr. Wohlenberg presented the paper at a meeting of the American Society of Mechanical Engineers, but he permitted Mr. Lindseth to answer questions from the audience. Among the listeners was the chief power plant engineer of The Cleveland Electric Illuminating Company where Mr. Lindseth was already working.

Within a year, Mr. Lindseth was promoted to production engineer, a job in which he remained for ten years, charged with devising methods and machinery for improving power plant operation. During this period, electric companies around the country achieved notable advances in operating procedures, including loading of turbines for maximum effectiveness and economy. At The Cleveland Electric Illuminating Company, Mr. Lindseth figured prominently in this work.

In 1937 his advancement accelerated. That year he was appointed assistant to the executive engineer. Thereafter he received promotions to technical assistant to the president in 1939, to assistant to the president in 1941, to vice president in charge of sales in 1942, and to executive vice president in 1945. Within a few months after he took the latter post, the president died and Mr. Lindseth was elected to the top spot.

Mr. Lindseth strongly believes in community-building by electric companies. He sees that his company, as an organization, gives its full share of leadership and support in civic service and welfare work, and he encourages all employees to do their individual parts in advancing the common welfare.

Mr. Lindseth himself is a leader in an imposing list of organizations with national and local importance. He is a trustee of the Committee for Economic Development, the Cleveland Community Fund, Case Institute of Technology, the Cleveland YMCA and YWCA, and the Cleveland Hospital Fund. He is a past president and a director of the Cleveland Chamber of Commerce. He also holds directorships with the American Management Association and the National City Bank of Cleveland, and is a member of the executive committee of the Association of Edison Illuminating Companies. He is an active member of the Cleveland Council, Boy Scouts of America, the American Society of Mechanical Engineers, Phi Beta Kappa, Beta Theta Pi, Tau Beta Pi and Sigma Xi.

In 1946, Mr. Lindseth was awarded an honorary degree of Doctor of Engineering by Case.

thanks the Convention Program Committee, composed of its Chairman, Walter C. Beckjord, The Cincinnati Gas and Electric Company; C. E. Kohlhepp, Wisconsin Public Service Corporation; and McGregor Smith, Florida Power and Light Company.

Tribute was also paid to B. L. England, president of Atlantic City Electric Company, as well as to the members of his organization, for their invaluable aid in the role of hosts at the Convention. Others whose efforts were deeply appreciated included the *Electrical World* staff members who produced the Convention's daily newspaper.

For their fine contributions to the entertainment program, Mr. Acker thanked the Westinghouse Electric Corporation, General Electric Company, Frigidaire Division of General Motors, and Public Service Electric and Gas Company.

Besides the Institute's buffet, which featured a stage show and dancing, recreational attractions at the Convention included Westinghouse Electric Corporation's cocktail party on Tuesday evening, and General Electric Company's cocktail party on Wednesday evening.

FIRST GENERAL SESSION

In the Convention's opening address at the first general session on Tuesday afternoon, May 31, President Acker took a strong stand against the increasing activities of the government in the generation and distribution of electric power, stating that "complete nationalization of the power industry is a fundamental precept of socialistic planners."

In refuting charges of proponents of government power, Mr. Acker said that the customers of the private electric companies fared better as a whole than those users dependent for their service on governmental sources. He pointed to the companies' $9 billion expansion program as giving "striking proof of the leadership, vision, engineering ability and financial strength of the electric utility companies."

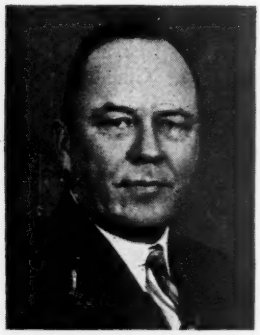
Mr. Acker asserted that "no section of the country, except possibly the Pacific Northwest, will be handicapped by a lack of capacity during the coming winter. In most areas," he said, "normal reserve margins will be restored by the end of this year rather than at the end of 1951 as originally scheduled."

Reviewing rate developments and their effect on the industry's expansion, Mr. Acker said that regulatory commissions were giving increased recognition to the fact that adequate earnings are essential

Newly Elected Members of the EEI Board of Directors

(Terms Expiring in 1952)

IN addition to those members of the EEI Board of Directors who appear on this page, Mr. L. M. Klauber, Chairman of the Board of the San Diego Gas and Electric Company, San Diego, Calif., has been elected to fill the unexpired term of Hance H. Cleland, retired Chairman of the Board of San Diego Gas and Electric Company.



W. C. BECKJORD
President, The Cincinnati Gas & Electric Co.

H. B. BRYANS
President, Philadelphia Electric Company

H. C. CUMMINS
First Vice President, Northern States Power Co.

C. B. DELAFIELD
Asst. to President, Consolidated Edison Co. of N. Y., Inc.

W. G. B. EULER
Vice President, Pacific Gas & Electric Co.

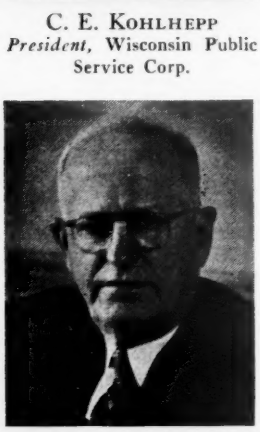
F. C. KELLOGG
President, Pioneer Service & Engineering Co.

C. E. KOHLHEPP
President, Wisconsin Public Service Corp.

P. H. MCCANCE
President, Duquesne Light Co.

R. E. MOODY
Exec. Vice President, Union Electric Co. of Missouri.

IRWIN L. MOORE
President, New England Electric System



A. T. O'NEILL
President, Buffalo Niagara Electric Corp.

HAROLD TURNER
Vice President, The Ohio Power Co.

G. W. VAN DERZEE
President, Wisconsin Electric Power Co.

FRANK M. WILKES
President, Southwestern Gas & Electric Co.

to the attraction of new capital to finance expansion of the industry. In many instances, he said, the commissions have "granted rate increases based on additional earnings necessary to cover the capital requirements of the business rather than on a theoretical return based on a hypothetical rate base."

Speaking next, the Hon. Edmond M. Hanrahan, chairman of the Securities and Exchange Commission, Washington, D. C., told the delegates that within the past ten years, operating electric utility companies "have become almost incredibly stronger and healthier." He attributed this development partly to the heavy demand for electricity during the last decade, and said that "a great deal of this financial improvement can be ascribed to the salutary effects of the Holding Company Act."

More than half of the integration and simplification of financial structures of utilities as required by Section 11 of the Act has been completed, Commissioner Hanrahan said. Investors in holding company securities "have come out of the reorganization process with far better securities than those with which they went into it," he asserted. "They have obtained securities which represent a down-to-the-rails investment in local operating companies or regulated regional holding companies in substitution for highly-leveraged and speculative holding company securities.

"Generally speaking," said the Commissioner, "the industry is to be commended for the soundness of financial structure which it has maintained."

McGraw Scores Socialist Policies

In an attack on government encroachment on American business, James H. McGraw, Jr., president and chairman of the board of the McGraw-Hill Publishing Company, New York, N. Y., warned that "industry can lose only once," and called attention to the "two-pronged pincers movement" threatening free enterprise.

"One prong," Mr. McGraw said, "is the continuing program of federal taxation on a scale that will cripple the capacity of private industry to finance its needs for new plants and equipment." Mr. McGraw named the Stability Act of 1949 as the other prong, characterizing it as "the most vicious proposal ever introduced in Congress."

Stating that "others of our industries are merely being threatened with nationalization," Mr. McGraw said that "the electric power industry is in the process of being nationalized today." He pointed to the failure of nationalized power in France and England, and declared that electric customers "are not yet aware that they have more to fear from the unregulated monopolies of Big Government and Big Labor than from the regulated monopoly in the power fields."

L. V. SUTTON

Elected Vice President of the Edison Electric Institute

Mr. Sutton, a native of Richmond, Va., attended the Petersburg (Va.) Academy, and in 1910 was graduated from Virginia Polytechnic Institute with a B. S. degree in Electrical Engineering.

His career in the electric industry began in 1910 with the apprentice engineering test course of the General Electric Co. at Lynn, Mass. In 1912, he joined Carolina Power & Light, serving successively as statistician, assistant engineer, division manager, commercial manager, and assistant to the general manager. In 1924, he became assistant general manager of Arkansas Central Power Co., and then vice president, general manager and director of Mississippi Power & Light Co. in 1927. He returned to Carolina Power & Light in 1933 as president, general manager and director, which positions he holds at the present time.

In the continual expansion of its services lies the electrical industry's greatest contribution "to the American way of life" and to the defense of "our American system," James H. Jewell, vice president of Westinghouse Electric Corporation, Pittsburgh, Pa., then told the delegates.

Mr. Jewell stressed that only by "aggressive selling" could the industry widen the scope of its service, and pointed out that "selling is a service to your customers," and not a need "which can be completely gauged by a study of financial reports."

The electric industry must provide leadership in "carrying the benefits of electric power to the American people," Mr. Jewell said. Stating that the industry "will not thrive on a diet of complacency," and commenting on "those who would like to see us adopt a passive attitude," Mr. Jewell declared that "we must assume our rightful responsibility in this fight for free enterprise."

SECOND GENERAL SESSION

Philip Sporn, president of American Gas and Electric Service Corporation, New York, N. Y., opened the second general session on Wednesday morning, June 1, declaring that the "apparent miracle" which the electric industry has performed in controlling costs was accomplished by "neither chance nor mere good fortune," but by "conscious effort, by exercise of great skill, ingenuity, and enterprise."

This achievement, Mr. Sporn said, is the "distinctive part" of the outstanding record of performance which the industry has established during the last decade. Reviewing the "great job" done in supplying power for the war, he said that its accomplishment "with an economy and precision of means" was unapproached in any other industrial field, and he commented on the post-war "expansion program that for size and scope is unprecedented in the annals of this country's power industry or of any other industry."

The miracle of lower costs was brought about in the face of a tremendous increase in demand, and the near doubling of costs of labor and material entering into electric operations, Mr. Sporn said. Accomplished on a three-part basis, the "miracle" consisted of "a sharp reduction in the amount of plant per kilowatt and kilowatthour sold; less manpower per kilowatt and kilowatthour; and the integrated effect of numerous techniques and devices designed to reduce capital and operating expense."

Explaining that the first two factors, "tied up with the absorption of margins," have been responsible for perhaps one-half to two-thirds of total savings, Mr. Sporn declared that "the third effort has been a clear-cut conscious approach to the problem and it illustrates again the great good fortune of the in-

dustry—its scientific and technical foundation."

Taking up the threats of nationalization in this country, Charles E. Wilson, president of the General Electric Company, New York, N. Y., told his audience that the electric light and power industry, "a key business in the mighty economy of our country," faces "one of the gravest situations, and at the same time one of the brightest opportunities" in the "whole business of keeping America on the track" of free enterprise.

Pointing out that the industry was "built on pioneering, on individual ingenuity, on courageous private financing, on aggressive selling, on fundamental relationships with the public," Mr. Wilson asked, "Who sat with Edison through the long hours at Menlo Park watching an absurd filament glow in a bottle? Was it the Department of the Interior?"

Mr. Wilson declared that "nationalization of all American industry will be much easier of accomplishment" if the electric industry is "taken over by the government—so this strikes me as a good place to stand and fight."

In discussing the over-all business picture, Mr. Wilson noted that the present decline in industry production "may continue until about the second quarter of 1950, when production is expected to turn up." He said that "production may again reach the high level of 1948 by the end of 1951."

Upholds Big Business

Mr. Wilson also described the consequences which may occur if the government's contradictory attitude towards big business continues. "If large business enterprises are no longer permitted to exist," he said, fewer corporations will be able to take large economic risks; higher prices and a lower standard of living will result; and there will be fewer opportunities for career employment in business. Less basic scientific research will be undertaken under such conditions, he said, and there will be fewer adequate-sized companies on which the armed services must count in case of war.

With the "planned destruction of the economic power of private corporations," Mr. Wilson warned, their power would be transferred to the government. "We would then have big government corporations. Today the people have recourse against monopoly and inefficiency in private business," he said, but "they should remember, before it is too late, that there is no recourse against government monopoly and inefficiency."

Harold H. Young, partner in Eastman, Dillon and Company, New York, N. Y., then discussed the outlook for utility financing, pointing out that the utility common stock picture is more cheerful than it has been in some time.

Favorable Attitude to Utility Stocks Seen

"The more favorable feeling toward utility stocks, which began to be in evidence around the turn of the year, was brought about in considerable measure by the change from an atmosphere of inflation to one of deflation," Mr. Young said. "When commodity prices began to level off and subsequently to decline, people were ready to concede that the utility companies would be affected favorably rather than otherwise."

Mr. Young stressed the fact that every effort should be made to make common stocks increasingly attractive to the investor through higher dividend rates, and declared that the stockholder should not "come out on the short end" during a period in which electric company customers and employees have fared so well.

ENGINEERING—PARALLEL SESSION

On Wednesday afternoon, two sessions on engineering and rates got underway simultaneously at the Haddon Hall. At the engineering session, presided over by E. W. Dillard, Chairman of the EEI Engineering Division General Committee, Walker L. Cisler, executive vice president of The Detroit Edison Company, Detroit, Mich., delivered the opening address in which he declared that "safe margins" in electric generating capacity "will exist at least a year earlier" than formerly anticipated.

Mr. Cisler, who is chairman of a group of electric power supply experts, said that their fifth semi-annual power survey revealed that 1948's "5.6 per cent in reserves" will be "substantially increased to 9.6 per cent in 1949." In 1950, Mr. Cisler said, reserves will reach 12.0 per cent, and "15.6 per cent in 1951, which is certainly a safe margin for both peacetime and national defense requirements."

Mr. Cisler remarked that "the improved reserve margins reflect in part the lower trend in load growth which present conditions indicate, as well as a speeding up of construction schedules." He said that 7,000,000 more kilowatts are scheduled for service in 1949, as the addition of new generating units reaches full momentum.

Emphasizing that recent standardization in electrical manufacturing has had a braking effect on electrical equipment costs, A. C. Monteith, vice president of Westinghouse Electric Corporation, Pittsburgh, Pa., then told the delegates that without standardization, "electrical prices would have risen even more."

"It is not easy to see the benefits of standardization at a time of rising labor and material costs," Mr. Monteith said. "A greater adherence to standards, especially in times of lower business levels, can bring fuller advantages to the industry by increasing volume and thereby reducing costs of electrical equipment."

Mr. Monteith declared that those "who are anxious to keep investment costs down must not only encourage the establishment of standards, but must insist" that they be followed. "The final users," he warned, "pay for every successful attempt to sabotage either a manufacturer or an industry standard."

Speaking next, Charles W. E. Clarke, vice president and consulting engineer of United Engineers & Constructors, Inc., Philadelphia, Pa., declared that in supplying "to the full the ever-changing needs of the consumer," the electric industry has advanced power generation techniques at an "amazingly rapid pace."

Tracing the evolution of power generating units since the beginning of the century from capacities of 5,000 kilowatts in 1903 to today's machines, capable of producing up to 200,000 kilowatts, Mr. Clarke predicted that even larger units would be developed if needed to meet the demands of the modern electric age.

Utility Pioneers Praised

"The utility industry of this country can look with pride to the fact that they have been pioneers," Mr. Clarke said. "They have tried to anticipate the consumer's needs and have succeeded to an amazing extent; they have cooperated in the highest degree with the progressive ideas of engineers and manufacturers."

Asserting that for every dollar being invested for generating capacity in electric industry expansion, there should be about $1.50 invested in the expansion of distribution systems, T. J. Brosnan, distribution engineer of Buffalo Niagara Electric Corporation, Buffalo, N. Y., declared in his address that "with the immediate need for generating capacity, the investment in distribution system expansion necessarily lags, but the normal balance in the investment between the two should be re-established over a short period of time."

Pointing out that predictions hold that

electricity load will double within ten to twenty years, Mr. Brosnan said that "we have a wonderful opportunity in the years just ahead" to insure that distribution systems are "economic and dependable" as they are expanded to accommodate the new demand.

RATES—PARALLEL SESSION

In Wednesday afternoon's parallel session on rates, S. W. Andrews, rate engineer of American Gas and Electric Service Corporation, New York, N. Y., presiding at the meeting in his capacity as Chairman of the EEI Rate Research Committee, delivered the first address.

Mr. Andrews summed up rate developments since 1947, pointing out that over 250 increases in rates for electricity supplied to the public by municipalities and governmental agencies have been made effective since that time, while 121 rate increases have been granted to electric companies during the same period.

Commenting that 1944 through 1946 was "the period of greatest rate reduction in the history of the companies," with $80,000,000 of reductions made in the single year 1946, Mr. Andrews said that the total money involved in company rate increases since the beginning of 1947 "amounts to about $78,000,000 granted and about $22,000,000 where cases are still pending, a total of approximately $100,000,000."

Approves Rate Commission Actions

Mr. Andrews, in reviewing regulatory commission action on rates, expressed satisfaction at commission recognition of the need for adequate revenue, and said that "when the time came that rate increases were needed, they were secured almost 100 per cent."

Speaking on the rate problem posed by expected residential loads of "unusual magnitude," L. R. Lefferson, rate department manager, Ebasco Services Inc., New York, N. Y., noted that "present rates are designed to fit anticipated residential loads falling within a fairly narrow pattern of loads and load factors," and warned that "when a significant number of residential customers begin to require capacities substantially beyond that pattern, it is time to take stock of the situation."

Space heating by radiant panels with high demand and low load factor was offered by Mr. Lefferson as an example of an electrical application which would be responsible in part for rate adjustment. Demand metering is under consideration as the solution to the problem, Mr. Lefferson said. "It is far better," he said, "to anticipate changing loads by the promulgation of adequate rates prior to the time customers are affected than to raise them later."

The lawyer's role in rate cases has been "radically affected" by the enormous increase in demand for electric service since World War II, Paul W. McQuillen, partner in Sullivan and Cromwell, New York, N. Y., told the delegates.

In rate cases of earlier days, Mr. McQuillen said, the lawyer usually assumed the leading part because rate proceedings resulted in litigation in the courts. "The whole atmosphere was one of contest," he said, pointing out that such cases were usually started by city officials or initiated by commissions for reductions.

Public Interest in Electric Supply

Now, according to Mr. McQuillen, rate proceedings, formal or informal, are for the common requirement of assuring strong utilities, capable of giving the very best of service and plenty of it. There is a national public interest vitally dependent upon the supply of electric power which makes a common denominator of the interests of all parties in a rate case, the lawyer declared.

THIRD GENERAL SESSION

Opening the third general session on Thursday morning, June 2, H. M. Sawyer, Chairman of the EEI Prize Awards Committee, conducted presentations of the Claude L. Matthews Valor Award, the Reddy Kilowatt Annual Report Award, and seven awards for achievement in Planned Lighting. The full Prize Awards Report appears elsewhere in this issue of the BULLETIN.

Ray R. Nabors, boiler operator of the Kentucky Utilities Company, Lexington, Ky., received the Valor Award for his "high fidelity to duty" and "courageous action at great personal risk to himself," when in the midst of scalding jets of steam and hot water, he removed two boilers from service after a tube had exploded in one of them. He thus "avoided possible injuries to his fellow workers, interruption to service, and further damage to equipment." The presentation to Mr. Nabors marked the second time that

RE: ELMER LINDSETH AND EEI

An editorial from the Cleveland Plain Dealer, *June 3*

"Apostle of Free Enterprise"

"The Edison Electric Institute has been effectively demonstrating the merits of private enterprise. The election of Elmer L. Lindseth, head of The Cleveland Electric Illuminating Co., to the presidency of the Institute gives renewed impetus to the program.

"Edison Institute embraces most of the private light and power companies of the nation. It was organized during the economic difficulties of the early 1930's for the purpose of increasing the use of electric power.

"In accomplishment of this purpose in a period of business stagnation, it was obviously necessary to provide better service at more attractive costs. It involved, therefore, every phase of the industry—mechanical improvement, lowered costs through more efficient operation, and a sales campaign.

"Notable success has been enjoyed. The committees which dealt with the various details of the power business were made up of outstanding executives in the field. Member companies and the whole public have reaped benefits that are too great to evaluate in dollars and cents.

"In this period, by virtue of the competition of government through such projects as TVA, the power industry has been faced with the job of proving by accomplishment that private enterprise can meet national requirements more cheaply and efficiently than government. And the histories of private power companies through the war, and since, have proven it.

"The Cleveland Electric Illuminating Co. has been signally successful. Without the authority of government to sequester scarce materials and skilled labor, and without a reserve of taxpayers' money to protect against loss, it has expanded sufficiently to meet present and future power needs in this area.

"President Lindseth, therefore, demonstrated in a practical manner that private capital can be obtained in this important field, and that industries using power, and the public, too, enjoy the most economical service under the free enterprise system.

"We congratulate Lindseth on the honor that has come to him, the Institute on recognizing his unusual qualifications."

a Kentucky Utilities Company employee had been so honored.

Receiving the Reddy Kilowatt Award for the best 1948 annual report was the Pennsylvania Power and Light Company, Allentown, Pa., whose president, Charles E. Oakes, past President of the Institute, accepted the Award on behalf of his company. Honorable Mention Certificates were awarded to Arkansas Power and Light Company, Pine Bluff, Ark., C. H. Moses, president; Central Arizona Light and Power Company, Phoenix, Ariz., Henry B. Sargent, president; Florida Power Corporation, St. Petersburg, Fla., A. W. Higgins, president; Puget Sound Power and Light Company, Seattle, Wash., Frank McLaughlin, president; The Shawinigan Water and Power Company, Montreal, Canada, James Wilson, president; and Wisconsin Power and Light Company, Madison, Wisc., Grover C. Neff, president.

Planned Lighting Awards

Pennsylvania Power and Light Company also scored in the Planned Lighting competition, winning the over-all Award, as well as gaining two of the awards offered in the residential, commercial, and industrial lighting fields. Winning companies in these three categories also included West Penn Power Company, Pittsburgh, Pa.; New Orleans Public Service Inc., New Orleans, La.; Duquesne Light Company, Pittsburgh, Pa.; and The Dayton Power and Light Company, Dayton, Ohio.

To maintain a normal flow of capital to the electric companies, investor relations through the medium of financial agencies must be built up, Tom P. Walker, vice president of the Irving Trust Company, New York, N. Y., then told the Convention.

Facts for Security Dealers

Because "holding companies, the source of most of the capital required in the 1920's when the industry had its first great period of expansion, are largely eliminated," Mr. Walker said agencies which buy securities directly, as well as those agencies functioning as advisers, must be kept acquainted with the facts by operating company management.

Noting that "operating companies, scattered throughout the land, compete with each other and with all industry for the investor's favor," Mr. Walker stressed the importance of getting "pertinent statistics, facts and ideas to the exact point where they will do the most good."

He also recommended a frank and personal approach as being most helpful in keeping the financial community informed and friendly. "The financial agencies are as sincere as you are in their determination to preserve our private enterprise system," he said.

American Brand Collectivists Attacked

Branding government planning as the parent of dictatorship, Morris Sayre, president of Corn Products Refining Company, and chairman of the board of the National Association of Manufacturers, New York, N. Y., delivered a scathing attack on "American brand collectivists."

"Most of all, they relish any seeming failure on the part of management to make the system work effectively for all the people," he charged. "To promote the very evidences they love, the army of the Left does its level best to impair the normal interplay of forces within our capitalistic economy."

Pointing out that control is piled on control "until capitalism is first paralyzed, then destroyed," Mr. Sayre said that government planning "means the ultimate rationing of poverty and misery."

Mr. Sayre called for a strong program to "arouse the people of America—including the businessmen of our nation—to the danger of any compromise of freedom," and asked if it wasn't about time to call "a halt to our retreat from greatness."

Presenting another aspect of the fight to protect the free American economy, Kinsey M. Robinson, president of The Washington Water Power Company, Spokane, Wash., discussed the question of how the electric industry's many thousands of employees can be stimulated "to a higher level of morale which will result not only in an impressive effort to preserve private enterprise but in a crusade."

In describing his company's efforts to solve the problem locally, Mr. Robinson referred to "the all-out effort that has been made to liquidate private enterprise in the Northwest electric industry," and credited the individual employees of his own company as winning the electric consumer to the side of the electric company.

"We have been given the third degree by Federal bureaus," Mr. Robinson charged. "Powerful combines have perfected a shocking underground organization with but one goal—the death of private industry. National groups, with not the slightest interest in northwest development, have exerted pressures seldom seen by a military task force."

Discussing in detail methods of bolstering employee-management relations, Mr. Robinson stressed that employees should be kept honestly informed of company policies and practices. Regarding the question of whether employee effort is worth the time and the cost, Mr. Robinson pointed out that the "Federal government spends 74 millions annually to tell its story," and, declaring that "electric companies won't be worth much if they are lost," he stated that "employee participation is worth the effort and the cost many fold."

ACCOUNTING—PARALLEL SESSION

Parallel sessions on accounting and commercial activities drew the delegates' attention on Thursday afternoon. At the accounting session, presided over by Allan G. Mitchell, Chairman of the EEI Accounting Division Executive Committee, Harold H. Scaff, vice president, Ebasco Services Inc., New York, N. Y., delivered the opening address, declaring that if the electric utility industry is to obtain sufficient risk capital from the public to enable it to carry on its vast expansion program, "our top men must take off their coats and work at the job of selling this industry to the people."

Mr. Scaff, who is Chairman of the EEI Committee on Financing Utility Capital Requirements, discussed methods of improving relations with investors and prospective investors, underwriters and dealers, and said, "Good investor relations do not just happen, they have to be achieved. Once attained, they must be maintained by unremitting attention. They are the means of instilling confidence among investor groups that the utility is a good investment risk."

Purchase-Lease Financing

Describing purchase-lease arrangements as "a relatively new method of financing," William W. Bodine, financial vice president of The Penn Mutual Life Insurance Company, and former president of The United Gas Improvement Company, Philadelphia, Pa., explained that real estate and generating facilities could be purchased by nonutility investors under such an arrangement and leased back to electric companies for long-term periods, thus avoiding greater electric company investment in fixed assets.

The primary purpose of such an operation should be "the release of funds

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The President's Address

By Ernest R. Acker
President, Edison Electric Institute

An address before the Seventeenth Annual Convention of the EEI, Atlantic City, N. J., May 31, 1949

IT IS my great privilege to welcome you to this 17th Annual Convention of the Edison Electric Institute and to participate with you in the unusually constructive program which has been drafted by your committee in recognition of the responsibility of the electric industry for the present and future power supply of the nation.

We are met in a period of continuing economic and social change which has imposed upon us some of the most far-reaching problems in the history of the industry. For this reason we are met with serious purpose and a firm resolve to fulfill our public responsibility, to protect our investors, and to preserve for the employees of our industry the freedom of opportunity which has inspired them to the high accomplishments of the past. It is our purpose to review the record of our progress in these regards and, through the free interchange of information which is so characteristic of our industry, to take counsel as to the charting of our future course.

State of the Industry

In opening the program of this Convention, I propose to discuss briefly some of the important factors affecting the current position of the electric industry. In order to avoid unnecessary duplication of matters to be covered more fully in subsequent presentations, I will confine myself to a highlight review of particular subjects and ask that you consider the entire Convention program as the report on the "State of the industry."

We have been faced during the past two years with a problem of great potential public concern—the threat of a so-called "power shortage." This threat came as a result of circumstances beyond our control involving, first, governmental restrictions on the installation of new generating capacity during World War II, and second, the unprecedented and unexpected load growth experienced in the postwar period.

Without full knowledge of the coming load growth, however, but immediately upon the lifting of the ban on the production of electrical equipment, the industry launched a six-year, 9-billion-dollar construction program to restore the margins of reserve capacity depleted during the war. This program, which covers the period 1946 through 1951, contemplates the addition of 52 per cent to the generating capacity of the industry as of the close of the war. It has taxed the production facilities of the electrical manufacturers to the limit, and represents, I believe, the biggest industrial expansion program in all history. In the face of many economic obstacles it gives striking proof of the leadership, vision, engineering ability and financial strength of the electric utility companies.

MR. ACKER

Private Power Customers Fared Better

During the first three years of the program, the growth of the electric load in all sections of the country pre-empted the new capacity almost as rapidly as it could be added, permitting little and, in some instances, no gain in the margins of reserve capacity. Throughout this period, however, the private utility companies handled the situation with remarkable ingenuity and resource and, with the exception of a relatively few brief curtailments and some shifting of industrial load to off-peak hours, met the requirements of their customers in full. The fact is that as a whole the customers of the private utility companies fared better during this period than those customers dependent for their service upon governmental power sources.

In spite of this, the electric industry, which has been subjected to vicious attacks by interests using the alleged "power shortage" as propaganda to bolster their designs on the federal treasury, has been faced with misinformation released by public power advocates, and has even been accused of failing to provide the requirements of one of our major industries interested in a continued supply of subsidized power. These attacks have been met by temperate, factual statements on behalf of the electric industry, which has chosen to concentrate its efforts on the job at hand rather than on useless controversy. In the light of present-day conditions the statements of our critics are even more untenable than at the time when they were made.

Reserves to Increase

We can now say with confidence that the reserve margins of the industry will continue to build up more rapidly than was originally contemplated and that no section of the country, except possibly the Pacific Northwest, will be handicapped by a lack of capacity during the coming winter. In most areas, normal reserve margins will be restored by the end of this year rather than at the end of 1951, as originally scheduled.

This situation is the result of two principal factors operating in favor of increased reserves. These are, first, a speeding up of the delivery and installation of new generating units; and second, a marked decrease in the rate of growth of electric loads throughout the country, particularly since the first of the year. Under these circumstances, the back of the "power shortage" threat has been broken and the industry can go forward with renewed faith in its ability to meet any conditions which can be foreseen at this time.

I cannot leave this subject without paying tribute to the skill and perseverance of our operating personnel who have seen us through the difficulties of the past several years. Their performance in marshalling and coordinating the

power resources at their command stands even higher than the record which they established during the war when this industry, through long-range planning and foresight, met all essential war demands. Had the industry failed in either instance we would have made the headlines as never before.

"I Don't Know How They Do It"

By contrast, the excellence of our actual performance was generally unrecognized because we did only what the public had learned to expect and, therefore, created little front-page news. I am tempted, however, to refer to press reports of a statement by the Secretary of the Interior, who in February, 1949 estimated that all electric utilities were working at capacity with the barest possible reserve for emergency, and who is quoted as having remarked, "I don't know how they do it."

As against the conditions outlined by Secretary Krug, the picture today is so materially improved that many electric utilities see an immediate need for the resumption of intensive sales effort. This need, of course, is directly related to the increased revenues required to provide earnings which will attract the new capital involved in the industry's 9-billion-dollar expansion program. We have now passed the halfway point in this program, the financing of which raised grave doubts initially in the minds of many people.

Securities Marketing Appraised

The record to date, however, has been most gratifying, and the favorable market reaction to recent utility common stock offerings is particularly encouraging. This is the result not only of the improved earnings position of the industry, but also of the ingenious methods developed by utility managements in marketing their new security issues.

In view of the continuing need for additional capital, it is significant to note that the large life insurance companies have recently come back into the market for utility preferred stocks. The more difficult half of the industry's financing program still lies ahead in that it involves a higher proportion of common stock financing than has been accomplished to date. Under the circumstances, the net income showing and dividend record of the utilities will play an increasingly important part in their future financing problems.

In this connection it is noteworthy that regulatory commissions are giving increasing recognition to the fact that adequate earnings are essential to the attraction of new capital and, in many instances, have granted rate increases based on the additional earnings necessary to cover the capital requirements of the business, rather than on a theoretical return based on a hypothetical rate base. Such consideration of the current rate problem is obviously in the public interest in that it assures our customers that the new facilities needed to meet their future power requirements can be readily financed. Inasmuch as a comprehensive review of the rate situation will be presented at the Wednesday afternoon session of this Convention under the auspices of the Rate Research Committee, I will omit any detailed reference to rate matters. I do, however, wish to repeat and re-emphasize a statement which I made at the recent EEI Sales Executive Conference in Chicago, particularly because the statement was unfortunately misquoted in one section of the press. My statement was as follows:

"Two things stand out, I think, in our current experience with the rate problem—first, that the increases requested have been modest in amount although generally speaking constructive in form; and second, that we are now, and probably will continue for some time to be out of phase with the decline in the general price level. This implies that requests for rate increases should be filed promptly and pursued vigorously lest we 'miss the market' and lose public understanding. In addition, every effort should be made to relate such increases to future capital requirements which in view of the heavy construction program of the next few years cannot help but weight our over-all costs with an increasing proportion of high investment costs. All other things being equal and assuming that we have reached a relatively stable price level, our average unit investment cost must inevitably rise as our total investment becomes more and more saturated with high cost plant. This, in my opinion, presents the great challenge of the day to the electric industry.

"We know, of course, that 'all other things being equal' is an unrealistic assumption as to this industry. We know that our engineers and research organizations will continue to improve equipment design to produce lower unit costs of generating, transmission and distribution facilities and that new methods will continuously be developed, as they have been in the past, to reduce operating costs in all departments of our business. This is our public duty and I feel strongly that every utility management, particularly at this time, should review its operations in detail and conduct a militant campaign to eliminate unnecessary activities, reduce operating costs and increase the productivity of its organization. I feel that the public should know that the industry is making a determined effort to limit rate increases to the amounts absolutely necessary for the maintenance of sound financial structures, after all other means to that end have been exhausted."

So much for my Chicago statement.

Rates and New Business

I am confident that utility managements are giving careful consideration to this aspect of the rate problem and will continue to recognize the public interest in the adjustment of their rate schedules to their new capital structures.

Another important element in offsetting increased investment cost is the attachment of new business. Notwithstanding the effect of rate increases, the industry will ultimately need an increased volume of business to support its large new investment. I have already indicated that many companies are now in a reserve position which justifies the resumption of active selling. It is merely a question of time before the entire industry will again be engaged in aggressive sales effort.

In view of the changed economics of our business, it seems apparent that future sales programs must give special attention to the maintenance and improvement of load factor. In this regard our sales organizations have a greater opportunity than ever before to do a constructive job and, by selective selling, to make an important contribution to the over-all success of our operations.

Joint Discussions Recommended

This effort will involve, in my opinion, a closer coordination with the work of our rate organizations than has previously been achieved, and, for this reason, I have strongly recommended that the Commercial Division General Committee and the Rate Research Committee of the Institute revive the joint discussions initiated prior to the war, but subsequently discontinued. This is of particular importance during the present period of rate adjustment inasmuch as we now have the opportunity to revise our rate structures in the light of new appliance development and new uses of our service—an important example being the field of electric house heating. The ideal form of rate structure should permit our customers to make any use of electric service which they desire so long as they pay a compensatory rate.

The matters which I have reviewed

thus far involve engineering, financing, operating and economic questions over which the industry has some measure of control. They are receiving the same broad-gauged, responsible and forward-looking consideration which has been traditional in the electric industry since the earliest days of its operation. Depending upon its own resources, the industry will continue to develop and improve its services and, in any economy based on private enterprise, will continue to meet its public obligations.

No review of the current position of the industry would be complete, however, without reference to the increasing activities of the government in the field of public power. The broad implications of this trend are a threat to the private utility companies as well as to the social and economic structure of the country. As citizens, we are strongly opposed to the use of the taxing power of the government to subsidize its competition with private industry.

Subsidized Power Unfair

We recognize that reclamation, irrigation, navigation, flood control and incidental power developments are proper provinces of the federal government. We object, however, to the use of federal funds for the development of power as the primary purpose of such projects and to the sale of the energy produced in direct competition with the electric industry at less than full cost. We object to the construction of duplicate transmission lines to bring subsidized power into areas already being served and to the assumption by the government of responsibility for the full power requirements of certain areas to the exclusion of private industry.

Menace to Democratic Principles

These activities of the government were advocated as early as 1923 by the Public Ownership League of America and, together with many other social concepts being imposed on American business and industry, are a menace to the preservation of our democratic principles of government. They are representative of the creeping socialism being witnessed in this country as political considerations continue to subordinate the national interest to sectional and class interests.

Beginning sixteen years ago, the federal government embarked upon a program of power development which, through the use of interest-free funds, arbitrary allocations of investment, tax exemptions and other privileges unavailable to private utilities, has gone forward at an accelerated pace. As a result the position of the electric industry has been under severe attack and some ground has been lost.

The private utilities are now generating 80 per cent of the nation's power requirements as against 96 per cent at the beginning of the period, and are distributing 85 per cent of the total output as against 94 per cent previously. During the last several years, however, the percentage position of the industry has not changed materially.

Fighting for High Stakes

It is estimated that by the end of 1951 the installed public power capacity will be 14,000,000 kw, while the installed capacity of the private companies will be 61,000,000 kw, or 82½ per cent of the total; further, that at the end of 1960, the public power figure will be 27,000,000 kw and the private power figure 100,000,000 kw, or 79 per cent of the total. These figures are based on the obvious determination of the private power industry, as now constituted, to retain the ownership and control of its present properties and service areas. If this is a proper measure of the future prospects of the industry, we are fighting for high stakes and may be expected to wage an aggressive and resourceful battle to hold our percentage position and combat further governmental encroachment on our business.

While recognition must be given to the strength of the forces aligned against us, we face the future with many favorable factors operating to our advantage. These factors have to do with the essential character and performance of the industry itself and may be summarized in part as follows: that we are engaged in a growing business providing an essential public service; that we require a comparatively small labor force by comparison with other major industries; that we are meeting the demands for our service; that we have continuously demonstrated our ability to finance the expansion of our business; that we have highly trained, capable personnel, imbued with the spirit of service; that we have free interchange of information between the various units of the industry; that we have a well-established reputation for able, progressive leadership not only in the fields of engineering, operation and management, but also in the field of civic and community development; and, finally, that we are supplied by the most enterprising, technically competent and resourceful manufacturers in the world.

In the light of these advantages I am convinced that no one of our national industries has within its own structure a finer record of past accomplishment or greater potentialities for future service than the electric power industry. We are aware, however, that outside influences may have a material bearing on the effectiveness of our performance, and we know that the complete nationalization of the power industry is a fundamental precept of socialistic planners. It is important to note that this latter issue has gradually been broadened and brought more fully into the open, so that today it represents not merely the fight of our industry for survival but the fight of all industry and of the American people for the preservation of their democratic principles of government.

Promote Public Understanding

We are encouraged by the fact that the issue is receiving increasing attention in the press and national magazines of the country, but this alone is not enough to stem the demands of special interests for sectional and class advantage. It is the public duty and constitutional right of every business organization and of every thinking citizen to promote public understanding of the dangers involved in the course which we are now pursuing. I urge that the electric industry continue, and redouble, its efforts to bring to the general public a clear understanding of the principles at stake and in particular, a full knowledge of the unsound economics involved in the public power program.

Federal Power Policy Confused

The confused and inconsistent policies of our Federal agencies in the development and administration of public power projects point up the recommendations of Past-President Charles E. Oakes with reference to the national power policy in his address at the 1948 Convention of this Institute. I strongly endorse Mr. Oakes' recommendations and urge that they be re-examined in the light of present-day conditions and subjected to active consideration by the industry. It seems clear to me that as a part of its public duty, the industry must courageously set forth the principles which will guide its operations, must state its position with respect to public power, and must press for the development of a

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Union Electric Company of Missouri Wins Charles A. Coffin Award

FOR the "brilliant success of its highly developed, well-conceived community relations program" Union Electric Company of Missouri, St. Louis, Mo., was awarded the

Charles A. Coffin Medal for 1948, emblematic of high achievement in the electric industry, at the 17th Annual Convention of the Edison Electric Institute.

In addition to the recognition given to Union Electric, whose President is J. Wesley McAfee, three other electric companies were cited for Honorable Mention. Showing "a high degree of managerial skill and foresight," according to Mr. Acker, these companies were: The Cincinnati Gas and Electric Company, Cincinnati, Ohio, W. C. Beckjord, President; The Detroit Edison Company, Detroit, Mich., J. W. Parker, President; and Southern California Edison Company, Los Angeles, Calif., W. C. Mullendore, President.

The award winner and the three utilities receiving Honorable Mention were selected from 25 companies, representing every section of the nation, originally nominated by a special panel for the honor. From these nominees, an EEI review committee selected the finalists, from whom a committee of judges chose the winner.

"All four of the companies, in the opinion of the judges," declared Mr. Acker, "submitted prize-winning presentations." The committee of judges making the final selection of the winning company consisted of Dr. James R. Killian, Jr., President of Massachusetts Institute of Technology; C. W. Kellogg, Past President of Edison Electric Institute, and Mr. Acker.

In earning the Award for "a distinguished contribution to the advancement of electric light and power service for the convenience of the public and the benefit of the industry," Union Electric gained nationwide recognition for its intensive community relations program.

Principal projects undertaken in this program included informational activity on the Company's $400,000,000, 15-year expansion, which "effectively identified Union Electric with the long-range stability and economic prosperity of our territory"; fly ash elimination, which was undertaken so successfully that the community's attitude has changed "from opprobrium to approval"; customer research, which has assisted "in correcting irritants, in guiding the development of policies and procedures and in assessing the impact of change on public thinking"; and the recently instituted "Department of Economic Development" which was formed to assist in bringing new industry to the area, and which is being cited as an "outstanding example of Union Electric's 'good citizenship'."

Union Electric Company of Missouri Vice President, C. E. Michel (center), accepts the Charles A. Coffin Award on behalf of his company and its President, J. W. McAfee, presented by Philip Reed, Chairman of the Board, General Electric Co., with the smiling approval of Ernest R. Acker (right), President of the EEI.

These, and many activities in other fields, have produced marked improvement in the general attitude as determined by competent public opinion surveys, according to the Union Elecric presentation. "In 1944," the report says, "the general attitude was 80 per cent favorable, 9 per cent unfavorable, and 11 per cent doubtful. In 1948 these percentages were 94 per cent favorable, an improvement of 14 per cent; 2 per

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Section 11 and a Strong Utility Industry

By Hon. Edmond M. Hanrahan
Chairman, Securities and Exchange Commission

An address before the Seventeenth Annual Convention of the EEI, Atlantic City, N. J., May 31, 1949

SWEEPING changes in the financial and organizational structure of the industry have been brought about under the Holding Company Act. To my knowledge, no American industry has undergone so thorough an overhauling as that experienced by the utility industry during the last 10 years. This has come about none too soon, for the industry has been confronted with the necessity of financing a construction program of tremendous proportions.

While the rate of future growth will depend, of course, on the ebb and flow of the business cycle, it is nevertheless an unchallenged fact that electric utilities must plan their financing in the light of long-term prospects of substantial growth. The last great financing effort, in the 'twenties, had to be carried out within the framework of the holding company systems. When holding companies failed to provide equity capital, both they and their subsidiaries were forced to issue senior securities to such an extent that overstrain and collapse of whole systems followed in many instances.

Sound Corporate Structure

Can the forms of corporate structure evolved in the last decade meet the great demands now being put upon them? Can they raise the necessary funds and can they carry the resulting burden without faltering? I believe they can. There is still work to do; some utility systems still contain corporate snarls, but, by and large, the industry is in a position not only to finance its needs but to finance them soundly.

It is a matter of record that during the depression years, net operating revenues of the electric industry held at levels only moderately below the best attained during the 'twenties. Yet no less than 128 companies, including 52 operating companies, were forced into bankruptcy, receivership, or extension plans between September 1, 1929, and April 15, 1936. Arrearages on preferred stocks of holding companies reached $282,000,000 by the end of 1938, and

MR. HANRAHAN

operating company preferreds had arrearages of another $140,000,000.

Most of these difficulties were not, I repeat, traceable to any substantial decline in operations but rather to capital structures with very small amounts of common equity; they were greatly aggravated by uneconomic combinations of property and the general attitude of exploitation which for a time was so prevalent.

Holding Company Act Enacted

Against this background, the Holding Company Act was enacted for the purpose of eliminating evils and abuses which had figured so prominently in the collapse of one utility empire after another in the early thirties. It sought to eliminate holding companies serving no useful purpose and to limit systems to physically integrated properties.

The Act also called for elimination of undue complexities in corporate structures and for redistribution of voting power among system security holders on a fair and equitable basis. Security transactions, purchases and sales of assets, servicing arrangements and most other aspects of a holding company's relationship with its subsidiaries were likewise subjected to control under the provisions of the Act.

Many of you, I am sure, have seen at first hand the invigorating effects which have flowed from application of these provisions. The management of many an operating company can now do its own planning; it can hire legal, banking, or servicing assistance of its own choosing, from its local area or elsewhere, according to the company's own needs and the community's requirements. It can respond directly and without restraint to the fair demands of the public and of regulatory bodies. It need not await the instructions of a remote supermanagement, nor is it dependent upon the favor or chance recognition of such a management in order to be properly rewarded for its services. These prerogatives may now be taken for granted. It was not always so.

Before examining further the nature of the last decade's developments, I want to make one thing clear. To be sure, it is the SEC which is charged with responsibility for seeing that the changes called for by the Holding Company Act are brought about. It would be most unrealistic, however, to attribute solely to the Commission the credit for the progress made in that direction. While I do not mean to imply that all has been sweetness and light, most of the industry has in fact done a great deal of constructive thinking and has seen much of it translated into action.

Holding Company Systems

Ten years ago, very few of the country's electric utility companies were not enmeshed in one or another of the holding company systems. The independents included a few large metropolitan companies, certain long-established utilities in New York and New England, and the barest scattering over the rest of the nation. The overwhelming majority had been bundled up in holding company packages.

Many of these packages were wondrous conglomerations indeed. It is not too surprising that water, telephone, ice, street railway, coal, oil, real estate, investment or appliance sales companies

had been mixed in with electric and gas utilities during the mad pyramiding of the 'twenties. But the list does not stop there. There were manufacturers of brick and tile, iron fence, wood products, paper. There were companies operating farms, quarries, gas stations, parking lots, theatres, amusement parks and even a laundry. There was a cold storage company operating in Alaska, and there was the New Orleans Baseball Company, Incorporated.

More than a thousand of these miscellaneous non-utility companies have been a part of holding company systems at one time or another during the last ten years; some seven hundred of them have by this time been dissolved, divested, or otherwise removed from registered systems.

Diversity of Interest

Aside from non-utility properties, an electric or gas company frequently found itself packaged with many distant cousins. No less than a dozen systems held operating properties in ten or more states; one system spread over 33 states and another over 29.

Various rationalizations were produced in times past for the policy which led to the accumulation of such scattered utility properties and so many diverse types of non-utility businesses. "Diversification of risk" and "efficiencies of centralized management" were among the glib justifications advanced for practices which in fact proved to have an exactly opposite effect. Congress recognized this fully; scattered properties and unrelated businesses were therefore outlawed from the new, integrated type of system contemplated by the Act.

Something over 900 utility companies were controlled by holding companies at the time of their registration under the Act. By this time, over six hundred of these have been freed from holding company control.

Where have they gone and who owns them now? The answers to these questions are both interesting and revealing, and I should like to examine them briefly.

From June 15, 1938 to April 30 of this year, 632 electric and gas companies were eliminated from holding company systems. Of these, 293 were eliminated by merger, dissolution, and certain other less frequently used means. These transactions have been primarily intra-system: that is, assets were reshuffled and were consolidated in fewer companies, but the assets were nevertheless retained within the system. Divestments, which constitute actual disposition of assets by a holding company, have accounted for the remainder of the total eliminations.

Limiting our attention to the electric companies involved in the divestment program, 210 such companies have been completely severed from holding company systems. An additional 124 electric companies have also been divested by one or more holding companies but remain subject to the Act by reason of their relationship to still another holding company. The majority of these latter companies will continue under the Act as members of integrated systems.

I should like to analyze more closely the manner in which the disposition of this entire group of 334 electric companies, with assets of nearly $9,000,000,000 has taken place.

In point of size, the largest segment of assets divested is represented by distributions by holding companies to their own security holders. Forty-nine companies with assets of $2,600,000,000 are no longer subject to the Act as a result of outright distributions of this nature. The full role of distributions has in fact been much larger, for the securities of 95 additional electric companies, with assets of $2,260,000,000, have figured in exchange and distribution plans without, however, ceasing thereby to be subject to the Act.

Direct Sale to Public

More than a third of the divested assets have been sold directly to the public. The common stocks of 49 companies have been sold in this manner and sold, moreover, at prices which represented very little discount from going market rates for comparable seasoned securities. Over the last ten years the public has purchased a total of $3,250,000,000 of electric company securities in connection with the divestment program.

These first two types of disposition together account for 90 per cent of electric utility assets divested. The remainder is made up of sales to public authorities, other utilities, and to individuals and non-utility companies.

Sales to other utilities have involved small companies almost exclusively. Forty-eight companies have been purchased in their entirety by other electric companies and 26 have sold a part of their properties to such companies. Aggregate assets of $360,000,000 have been sold in this way, primarily to larger companies able to integrate the smaller company's operations with their own. Integration of operations has been achieved in numerous other instances through mergers and consolidations.

The emerging picture is generally something like this: companies large enough to stand on their own feet have usually found their way into the hands of investors, by sale, exchange or distribution. Smaller units have been sold to or merged with larger ones, or have been purchased by public authorities and individuals.

Continuing Regulation

As indicated earlier, somewhat more than two-thirds of the electric and gas subsidiaries of registered holding companies have already been divested. Many of those remaining will also be divested. However, the Act is not, as frequent misconception has it, a completely self-liquidating instrument, but provides for continuing regulation of integrated interstate holding company systems.

Among systems which will remain subject to the Act might be mentioned American Gas and Electric Company, Central and South West Corporation, The Southern Company, New England Electric System, Middle South Utilities, and West Penn Electric Company. I would like to look briefly at a few of the systems and point out some of the more striking changes which have been brought about in them during recent years.

Central and South West Corporation, for example, was evolved from the Middle West Corporation System, which in turn had succeeded Middle West Utilities Company. When Middle West Corporation registered under the Holding Company Act in December, 1935, it had just emerged from the bankruptcy proceedings of its predecessor company. Its registration statement indicated that it had 152 subsidiaries, including 62 electric or gas utility companies and fifteen sub-holding companies. Sixteen of the 152 subsidiaries were themselves in process of reorganization under the Bankruptcy Act, and these in turn controlled an additional 74 of the system companies.

The bankruptcy proceedings cut through much of this corporate jungle, and Middle West itself did a great deal

of pruning in pursuance of Section 11 requirements. Many of the smaller properties were sold or merged with other companies in the system. The common stock of large units such as Central Illinois Public Service Company, Kentucky Utilities Company, Public Service Company of Indiana and Wisconsin Power and Light Company was distributed to Middle West's stockholders.

Central & South West System

Middle West is now well on the way toward liquidation, leaving behind it a number of well-regarded independent operating companies and the Central and South West system. This new system is limited to four electric utility companies of substantial size. Central and South West itself was formed by merging two sub-holding companies which between them had four outstanding issues of 6 per cent and 7 per cent preferred stock with dividend arrearages totaling about $16,000,000. These shares were retired at the redemption price plus accrued dividends as a result of the merger. As compared with combined common equity of 9.5 per cent prior to the merger, the new system had consolidated common equity equal to 29.5 per cent of total capitalization and surplus. Central and South West has since been subjected to the test of marketing additional common stock and has successfully raised $6.5 million in this way.

New England Electric System provides one of the best examples of corporate simplification and redistribution of voting power. Its predecessor, New England Power Association, was controlled to the extent of 51 per cent by International Hydro Electric System. New England Power in turn controlled five subholding companies. A plan filed under Section 11(b)(2) of the Act set up New England Electric System as a new holding company and its stock was distributed to International and to security holders in all six of the old holding companies. As a result, a single issue of debt and common stock replaced eighteen securities of the old system. The interest of International was reduced to 8 per cent of the voting power; International is subject to an order directing it, among other things, to dispose of its interest in New England Electric.

One of the most striking examples of over-all improvement has occurred in the system of Electric Power & Light Corporation, itself a subsidiary of Electric Bond and Share Company. At the end of 1935, Electric Power & Light had 31 subsidiaries, of which 10 were in a "great grandchild" position and one in that of a "great great grandchild." The system had 39 publicly held bond issues and 19 publicly held issues of preferred stock. Dividend arrearages on the subsidiary preferreds amounted to nearly $18,000,000 and reached $23,000,000 by the end of 1938, not to mention the huge arrearages on Electric's own preferreds.

So complex was the system financial structure and so burdensome were the publicly held securities that Electric's interest in gross income was only 10.6 per cent. As divestments have occurred, Electric has invested the proceeds in its remaining subsidiaries. In 1948, the system's gross income was nearly 50 per cent greater than in 1935, despite the disposition of over half its subsidiaries. The point of real interest, however, is the fact that Electric's 10.6 per cent equity in the gross income of 1935 had grown to an equity of 68.7 per cent in the gross income of 1948. By reason of this improvement it was possible to set up a soundly capitalized and independent system headed by the new Middle South Utilities, Inc., to control Electric's utility properties in Arkansas, Mississippi and Louisiana.

Security Sales Under the Act

A substantial proportion of the integration and simplification program—certainly more than half—is now completed. We can now say with assurance that the prophecies of sacrifice prices, forced sales, and other alarms raised before Congress of 1935 and in the early days of the Act have proved groundless. As the Senate Committee which reported on the Act predicted, holding company investors have come out of the reorganization process with far better securities than those with which they went into it. They have obtained securities which represent a down-to-the-rails investment in local operating companies or regulated regional holding companies in substitution for highly-leveraged and speculative holding company securities.

These benefits to holding company investors are not merely theoretical; they are supported by the judgment of the market place. The mere announcement by management of the filing of a major Section 11 plan and particularly the actual consummation of such a plan have customarily been followed by a pronounced rise in the market price of most—and sometimes all—of the securities involved in the reorganization.

The last ten years have, in fact, represented a period in which operating electric companies have become almost incredibly stronger and healthier. More than $1,300,000,000 of inflationary items have been eliminated from plant accounts; ratios of depreciation reserves to gross property are up 150 per cent; interest coverage has increased from 2.9 times to 4.3 times, and coverage of all fixed charges and preferred dividends is up from 1.9 to 2.7. Arrearages on preferred stocks have been virtually eliminated.

While total debt and preferred stock has increased by less than 4 per cent, generating capacity has been increased by 50 per cent and generation is up 150 per cent. I do not wish to minimize the effect of the general economic climate in bringing about this improvement; at the same time, I believe, it is entirely fair to ascribe a great deal of this financial improvement to the salutary effects of the Holding Company Act.

As I have indicated, Section 11 has gone far to place the industry in a position to finance its expansion soundly. Electric utilities which have been divested and are now independent have demonstrated their ability to command the confidence of the investing public.

A holding company with an integrated system can also—and almost certainly should—assure its system a strong capital structure. Where the subsidiaries are wholly-owned, with no senior securities in the hands of the public, the holding company may properly issue its own notes or debentures in appropriate amounts. Some $125 million of such securities have been sold since the beginning of 1948 and have been well received by investors.

Healthy Response to Common Stocks

If the subsidiary companies have themselves issued senior securities to the public, as is usually the case, the task of the holding company is largely confined to providing common stock equity. This is not always an easy task. Until quite recently, a new-money offering of holding company common stock was something known only to history. The response from the investing

public, however, has been quite encouraging.

The real hurdle, in fact, is not the investor's willingness to purchase holding company stocks; it is, instead, the frequent reluctance of holding companies to offer additional stock for sale. This reluctance does not appear to originate with holding company managements, although there are exceptions. Primarily, it springs from a peculiar species of stockholder group. A few years ago, in particular, the uncertainties of reorganization plus general market factors sometimes resulted in very pessimistic appraisals of holding company securities. This situation encouraged speculative purchases by persons and groups seeking capital gains. These gains were frequently forthcoming, and in many cases were quite substantial.

Speculation

One might suppose that stockholders interested in speculative possibilities would be prone to take their profits and move elsewhere. Some, of course, have done precisely that. There remain, however, substantial stockholder groups who wish to see holding company securities retain a speculative flavor. In order to minimize their own personal income taxes, they prefer to see earnings stay in the business rather than to be paid out as dividends. They are bitterly opposed to increasing or even maintaining the equity base through sales of additional stock. Most of them wish to see senior securities heaped upon the financial structure to increase the leverage inherent in their common stock position.

Some of them go so far, in fact, as to advocate curtailment of new construction so that new capital issues may be kept to a minimum. In brief, they wish to prevent holding company stocks from achieving genuine investment status—a status based on adequate and stable dividend income rather than upon sharply fluctuating market movements. While these groups ordinarily represent no more than a relatively small minority, they frequently exercise a disproportionate influence upon the financial policies of management.

Needless to say, the SEC will fight this tendency wherever and whenever it appears. The purposes of the Holding Company Act would indeed be poorly served if integrated holding company systems were painstakingly created, after long and difficult effort by managements and the Commission, only to be turned again into topheavy vehicles of speculation. This must not be.

The heavy demand for funds placed upon the industry by its construction program has subjected the philosophy of Section 11 to a concrete test. Fundamentally, the mark of soundly organized industry is its ability to raise funds, which is in turn the ability to command the confidence of investors. Obviously, an adequate portion of these funds must be in the form of common stock if investor confidence is to be retained over any period of time.

Thus far, the industry has met the test. In recent months we have all been encouraged by the increasing flow of equity money. I think it is quite clear that the industry of ten years ago could not have carried off this huge financial operation. Few holding companies could have raised funds, and most operating companies would have been effectively limited to senior securities, if, indeed, they were in a position to market securities of any sort.

Through Section 11, scores of individual companies were placed firmly upon their own feet and many holding company systems have been soundly reorganized. Far from becoming saturated during the process of transferring operating company ownership directly to the investing public, the equity market appears to have been both educated and stimulated.

Electric Industry Commended

Generally speaking, the industry is to be commended for the soundness of financial structure which it has maintained. There are only a few companies in the entire industry which have shown significant deterioration in capitalization ratios. While debt ratios tended to rise during 1948, they were generally held within bounds and have shown some tendency to level off thus far this year. Retained earnings have played a large part in keeping equity ratios on an approximately even keel; actual sales of common stock, last year and this, have equaled less than 10 per cent of total funds raised for new money purposes.

So long as the capital structure does not suffer materially, there is perhaps no reason to view the situation with alarm. Yet I for one would feel more comfortable if common equity were actually increased during periods such as the present when investors are looking very favorably upon utility common stocks. The construction program is not scheduled for completion tomorrow or the day after.

Most companies will go to the public for funds once, twice, or several times before even presently scheduled construction is completed. There is certainly no assurance that markets for common stock will continue to be as favorable as has been the case in the recent past. Many companies simply cannot afford to gamble on the future in this respect; there are maxims aplenty demonstrating the folly of taking the long chance, and I leave it to you to supply your favorite characterization.

Lease-Back Device

While the industry as a whole has made an honest effort to keep capitalization ratios on a solid basis, I cannot refrain from commenting briefly upon some exceptions. For example, a few companies have attempted to resort to the lease-back device. In view of the debt structures of most utility companies, the imposition of long-term leases in any substantial amount is inappropriate if not positively dangerous.

One instance of this sort concerns an electric company with a capitalization comprised of 64 per cent debt and 36 per cent common stock. I believe most utility managements would consider such a capital structure to have reached the upper limits of soundness. This management displayed no such inhibitions. Needing new generating capacity, the company arranged to have a station built by a corporation created for the purpose and arranged further for the new plant to be financed entirely by debt. The company then proposed to enter into a leasing arrangement, thereby, in effect, creating prior lien debt in its own structure. Pro forma capitalization ratios: 79 per cent debt, 21 per cent common equity.

The story does not end here, however. Because the transaction would have involved a parent-subsidiary relationship, the company was advised that it would necessitate registration under the Holding Company Act. Thereupon the company apparently gave up its leasing plans and concocted an alternative method devoid of subsidiaries. The company now plans a private issue of mortgage bonds plus a public issue of interim notes. These notes are convertible, after about a year, into common and pre-

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You Can Lose Only Once

By James H. McGraw, Jr.
President and Chairman, McGraw-Hill Publishing Company

An address before the Seventeenth Annual Convention of the EEI, Atlantic City, N. J., May 31, 1949

EVER since my publishing career started on *Electrical World,* 34 years ago, I have taken great pride in my association with the electrical industry. So I welcomed this opportunity to survey with you the situation in which the industry finds itself today, and to suggest a course of action.

As a publisher to the electrical industry over a long period, I count myself as one of you and will continue to share whatever tasks need doing to improve our service to the public. Further, I want to contribute whatever I can to help awaken the public to the dangers of economic autocracy which a centralized government in Washington is attempting to impose upon us. It is in such a spirit that I use the term "we" in this discussion.

It is my purpose to concentrate on the problem arising from the efforts of the federal administration, through its economic and fiscal policies, to socialize American industry in general, and the electrical industry in particular. Those efforts have culminated in a series of proposals which already have been submitted to Congress. The two most important of these proposals, taken together, constitute a pincer attack on our free industrial economy.

Federal Taxation

One prong is a continuing program of federal taxation on a scale that will cripple the capacity of private industry to finance its needs for new plant and equipment. The other is a grant of authority to the federal administration allowing it to provide new plant equipment whenever the President decides that private industry is not, in his opinion, expanding adequately.

Specifically, President Truman continues to urge that Congress approve an additional tax levy of $4 billion, largely on corporate profits. That would be in addition to the 38 cents that now is taken out of each dollar of corporate profit. If Congress takes more billions from the prospective profits of American industry, it will raise havoc with industry's ability to supply itself with the necessary new plant and equipment. When advocates

MR. MCGRAW

of this program drain corporate profits on this high scale, they are draining the life-blood of American industry. And they know it.

The Spence Bill

The *other prong* of this drive toward socialism is called the Stability Act of 1949, or the Spence Bill. I have denounced this bill as the most vicious proposal ever introduced in Congress. I repeat that charge here.

The Spence Bill allows the Federal Government to take over by providing whatever industrial expansion government officials may deem necessary. This combination of purposes is vicious and dangerous. First it cripples the ability of industry to finance its own expansion, and then it authorizes government financing and government operation of the very expansion that it has prevented industry from providing for itself.

I have been criticized many times in high government and labor circles for calling that "Socialism." Those behind the program apparently do not like that label. But I see no reason whatever to modify it. This program, in my opinion, is more deliberate, more determined, and more carefully planned than any similar socialistic program heretofore attempted in this country—even under the New Deal.

In their struggle to socialize our basic industries, the proponents of the program can lose many battles and yet come back again and again. *But industry can lose only once.* For when we embark upon the nationalization of industry, it will be difficult if not impossible to reverse the process or to confine it. Nationalization is economic cancer in an advanced stage.

Other of our industries are merely *threatened* with nationalization; *the electric power industry is in process of being nationalized today!*

Already, we have about $3 billion of public funds invested in federally owned or controlled power facilities. Already nearly 20 per cent of electrical power is generated in public plants. This proportion has doubled in less than ten years, and tripled in fifteen. It should be noted that the increase has been due almost entirely to expansion of federal plants. The ratio in non-federal public plants has stood almost constant, at around 6 per cent, during that period.

And now, as the Hoover Commission reports, nearly $40 billion more of federal investment is proposed, either directly in power facilities or indirectly through power-dependent, water-control works.

Government Competition

The power from these massive projects will be marketed by federal agencies. These agencies are not subject to the same limitations or restrictions that encompass your company operations. They have the backing of the Federal Government. And if the present $3 billion federal investment makes your government an unfair and destructive competitor, what will be the situation when this investment is increased by $20 billion or $30 billion or $40 billion?

There is still another reason why I am concerned about this huge impending federal investment. Most of the contemplated facilities will be remote from the load centers, will require costly transmission, and will be developed at costs that would be shocking to trustees of private investment capital.

But once built, these facilities become a dominant part of this country's power

supply. It is one thing to fit 35,000 kw of Fort Peck power into the existing picture, as has been done. It is quite another thing to fit 41,060,200 kw of authorized, underway, and proposed capacity into existing systems.

By sheer magnitude of this government investment and capacity, the question of government versus private ownership will pass out of the realm of ideological controversy. And before the public is aware of it, the government will be in the power business so deeply that nationalization will have become an accomplished fact, or an inevitable outcome.

Drift to State Socialism

What is responsible for this trend?

The force behind this trend is, in part, a world-wide drift toward State Socialism. This move had its advocates for many years, but it derived its great impetus from the desolation and despair caused by the depression that followed World War I. It was reflected in our own New Deal. It attained full stature in the police states of Hitler, Mussolini and Stalin. It is being vigorously promoted under Truman's socialistic subsidy state.

It is easy to understand why millions in Europe and Asia, even those who fought so gallantly and sacrificed so utterly during World War II, were swayed in their weariness and despair by the cruel promises of those who offered relief and security at the hands of government in exchange for freedom.

But here in America, where our people enjoy the highest standard of living ever known to man, surely here are found neither soil nor climate favorable to the natural growth of socialism. Yet there are many in our government who are doing their utmost to transplant it and to nourish it here.

The Threat of Nationalization

What a travesty it is that the government of the nation to which the whole world is turning for moral and material support should even now be contriving to undermine the institutions that make us able to help our friends abroad!

But aside from the world-wide situation, the trend toward nationalization in our power industry is due also in very considerable measure to conditions within the electric power industry itself.

Public opinion was inflamed and the whole industry—good, bad and indifferent alike—was discredited in the public esteem by the actions of some people during the "era of wonderful nonsense" following World War I.

Yet the generally fine record of the industry since its inception, its splendid accomplishment in the late thirties, and its incomparable performance during and since the war, have not had deserved recognition. Our lack of unity as an industry and our lack of courage have prevented us from building a return to public esteem and recognition which our record justifies.

Further, clever propaganda which has taken seed both in government and in business circles has convinced many sincere believers in the free enterprise system that socialism in the power field is somehow different from other forms of socialism.

There is our situation today. If we are to stop the trend toward nationalization, we must recognize that both these conditions I have mentioned—the world-wide trend to socialism and the special vulnerability of our own industry—have their sources in public attitudes. And the attitudes of any person toward "the utilities" is primarily his attitude toward *his own* utility.

Education of Customers

Obviously, then, our first task is to back up the intelligent, sincere and consistent performance of each company by equally vigorous education of its customers as to the essentials of that performance. Good performance alone is not sufficient. It must be sold to your customers, or else they will take it for granted.

For example, each company or system has the opportunity and the responsibility to tell its own public something about the engineering skills, the organization, the equipment and the capital funds that are necessary to provide proper service, and why the service it provides is adequate or inadequate. Its customers should know where the funds come from and what conditions are necessary to keep them coming. They should be shown simply and convincingly the effect of government policies on the flow of those funds.

Many people still have the false notion that federal power projects provide yardsticks to keep private rates under control. They can be shown that this notion is a myth and that, quite to the contrary, the taxes paid by the private utilities help to make up the deficits of federal operation.

A postwar congressional study asserts flatly that the rates now charged by existing federal power sources must be more than doubled if the projects are to pay their way. Do *your* customers understand that when Congress voted the money for those projects, it was promised that they would be self-liquidating?

Your customers are not yet aware that they have more to fear from the unregulated monopolies of Big Government and Big Labor than from the regulated monopoly in the power field.

Where Power Is Socialized

Most important of all, most people do not realize that nationalized power is failing, wherever it has been tried—not only abroad but in our own country! *You* know that in France, where the power industry has been nationalized for two-and-a-half years, rates have been boosted as much as 1000 per cent in some areas. Despite this, the utility operation there is in red ink. Moreover, the French power industry is so over-centralized and so infected with politics that good service at reasonable rates is out of the question.

You know that the British people have had a similar experience with their experiment. The British Electricity Authority took over a little more than a year ago and already has failed by 50 per cent to meet its capacity schedules. Shortages will continue at least until 1953. Even now rates are being standardized by bringing the lower-priced districts up to the higher. Note that in practice on that nationalized system, the leveling of rates is *upward,* not downward as our people are led to expect.

You know this, *but do your customers?* And, particularly, do they know that on our own Pacific Coast is a fine example of the difference in actual performance between private and Federal power? Here is proof which is close to home.

Northwest Story

The Pacific Gas and Electric Company, serving northern California, came out of the war with very little reserve capacity. Up the coast, the Pacific Northwest Power Pool, dominated by the Bonneville Power Authority, was a little better off, but faced an equally urgent task of increasing capacity to meet an expanding demand.

Both went to work, but with dramatically different results. By the end of 1948, northern California had ample power for every need, and now is safe

for the future, thanks to the aggressive action of the private company. But in the Northwest, where the Federal government, through Paul Raver of the Bonneville Power Authority, has publicly assumed responsibility for area generation, power curtailment and even rationing will continue for years. With a present deficiency of 100,000 kw and prospects of 600,000-, and 700,000- and 800,000-kw deficiencies in the future, the economy of the Northwest may be set back for a long time to come.

The details of that story might startle some of your customers. For example, President Truman, who through ignorance or worse, accused Pacific Gas and Electric of having "so little faith in the future of its area that it refused to be ready to meet the load," himself contributed to the sad condition in the Northwest by stopping new federal construction projects, including McNary Dam, for six months.

I warn you it will take courage to educate your customers to these and similar facts.

But despite critical reactions, *you must not pull your punches.* We dare not risk further nationalization of industry from the beachhead that has been established in the power industry. The public *must learn* that socialism is reactionary, that it is the oldest fraud in history, that only freedom is new and progressive.

Recruiting New Manpower

Yet we are not going to awaken the public unless we ourselves are thoroughly awakened to the threat that confronts us. We must be aroused to the point that we do something about the greatest internal problem of our industry—that is, the recruiting of manpower to fill more of the seats of management with younger, more vigorous men. Probably the greatest tragedy in the whole situation arises from our past failure to recruit, train and promote manpower adequately; to provide ample incentives and the opportunity for real advancement on a merit basis; and to allow intelligence and ability to move freely between companies. There has been too much bureaucracy in the utility field, with all that term implies of inflexibility, slowness of action, and complacency.

Our companies should now be putting their management into the hands of youthful, imaginative, dynamic leaders, who will face their tasks with the same high spirit that drove their distinguished forebears. They must have the qualities of vision, imagination, boldness and resourcefulness, coupled with a driving power that will insure progress through difficult times. Above all, they must have courage and high integrity. To bring forward quickly more young, competent and courageous men is the paramount task of management today. If this is not done, the utility industry will soon be dying at the top.

Young Leadership

With young leadership, the companies, in close cooperation with able and competent manufacturers, can continue their research to broaden the field of electrical power, in industry, in the home and on the farm. They can consistently reduce the cost of generating and delivering energy to the customer. That quest must remain, as always, the cornerstone of a progressive and prosperous industry.

If we are sufficiently aroused, the industry will develop the unity now so tragically lacking. I am told that the membership in this Institute, largest and most influential group in the industry, is something less than 200 operating companies. Yet the Federal Power Commission lists 314 Class A and B operating companies.

Lack of Unity

I do not know of any other major industry so lacking in unity; and no industry in America needs unity so much. The American Association of Railroads includes 90 per cent of the Class One roads. The American Petroleum Institute includes better than 90 per cent of the top companies.

The time has come when utility men must recognize that no issues within the industry can be permitted to obscure the common grave issue I here present. In the face of common danger, it is time to call a truce on all internal differences, resentments, jealousies and antagonisms, whether they be personal, regional, technical or economic.

No section of the industry can help itself in the long run by ridicule of another part. No company can take advantage of, or call public attention to, the mistakes or misfortune of another company without weakening the public confidence upon which its own security rests. Neither can any of us afford to ignore the needs of a neighbor.

For years, many utility operators have viewed the federal government's invasion of the power business with complacent detachment. It was a long way from home to the Tennessee Valley, the Pacific Northwest and the Arizona-California desert. The strong, cohesive systems north of the Ohio and east of the Mississippi found it easy to write off the isolated federal plants such as Fort Peck, Denison, and Norfolk, whatever may have been their misgivings as to the *principles* involved.

But today when I look from my office window at the broad expanse of the Hudson River, I see an outstanding power river. Since Congress approved the New Johnsonville steam plant, the federal planners no longer are tied to mountain streams. Today the Hudson has become a magnificent federal power river. It is full of condensing water, and a vast market lies only a block away.

And what is true of the Hudson is true of the Delaware, the Ohio, the Potomac, the Illinois and the Connecticut—to mention but a few. Today, federal competition is as real a threat in the East as it is in the West. I find it difficult to remain detached or smug and complacent in face of a 40-billion-dollar investment program for Federal Power.

No, so long as you are in business, you cannot detach yourself from the fight against socialism. And so long as you are in the electrical power business, you cannot detach yourself from any part of the fight against nationalization of power. As to that basic issue, every man in the industry must have a *national* as well as a *local* viewpoint.

Three Choices

The time now has come when the power industry must face up to the realities of its present and prospective situation, and must decide on a course of action. As I see it, there still remain three possible choices:

First, it might accept the present situation as being beyond remedy and elect to live with federal power as a neighbor and competitor while resisting further encroachment. In my judgment, such a position is untenable. That surely is a forlorn hope. Any effort merely to prevent extension of federal power would be interpreted to and by the public as obstruction for self-interest alone.

Second, the industry might move to buy and absorb existing federal power facilities. However desirable such a course might be, from a technical and economic viewpoint, I do not believe that it would be politically feasible at this particular moment. But we cannot stand still.

This leaves a *third* possible course. It rests on the accepted principle that elec-

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We Must Sell to Live

By James H. Jewell
Vice President, Westinghouse Electric Corporation

An address before the Seventeenth Annual Convention of the EEI, Atlantic City, N. J., May 31, 1949

DOWN through the years, this annual meeting of the Edison Electric Institute has become not only a place for discussion of the current problems of the electric utility industry, but, more and more, it has given the electrical industry an opportunity to discuss future problems and try to foresee what lies ahead.

This year, you finally see the turning point in the race between generating capacity and peak load. Of course, all financial problems have not been solved, but you are facing these problems with a feeling of greater assurance than I believe was the case a year ago.

Best Defense Is Expansion

More of your attention this year is focused upon the basic problem of all private industry. That is, preservation of our great American system of private enterprise. Mr. McGraw has already pointed out that our American system depends upon our willingness to aggressively defend it. I certainly agree with him and say that our best defense is to expand our services and continue to contribute still more to the American way of life that we all cherish.

In the past, the electrical business has always been vigorous because it has continually expanded its frontiers. Looking to the future, we can go forward only by widening the scope of our service. In other words, "We Must Sell to Live."

MR. JEWELL

Are We Ready to Sell?

Your first question may be, "Is enough electric power available to start aggressive selling?" So, let's see if the tight power situation is about over. From available data, Fig. 1, it appears that this year the electric utility industry, during the period of highest peak load, should have a margin of reserve capacity of 10 per cent. This margin will progressively increase to 17 per cent by 1951.

Your survey also shows that while the margin varies in different sections, practically all of the country will have a minimum of 13 per cent margin by 1951.

A year ago, Mr. Price, President of Westinghouse, presented to you forecasts of the future growth in the use of electric power. (See Fig. 2.) To meet these forecasts requires about 5.5 per cent annual increase in power sales until 1957. Two years ago, your annual increase was 14.6 per cent; last year 10.5 per cent; this year it is running at 6.3 per cent. Now is the time to take steps to keep this trend from dropping further.

Volume Needed Now

Manufacturing capacity is no longer a problem in the electric industry. Turbine generators are being produced today about as rapidly as the country can use them. Within the last four months, we offered to re-schedule for earlier shipment about 80 per cent of the large turbine generators we have on order. In most of the cases, these earlier shipments were welcome, but the general impression was obtained that the equipment

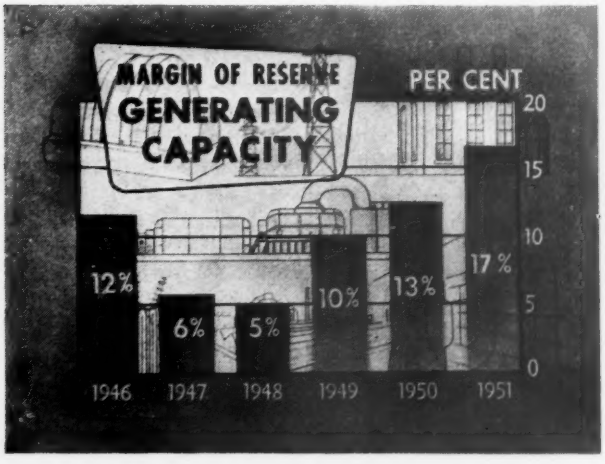


Fig. 1—Reserve Margins in Generating Capacity 1946 to 1951

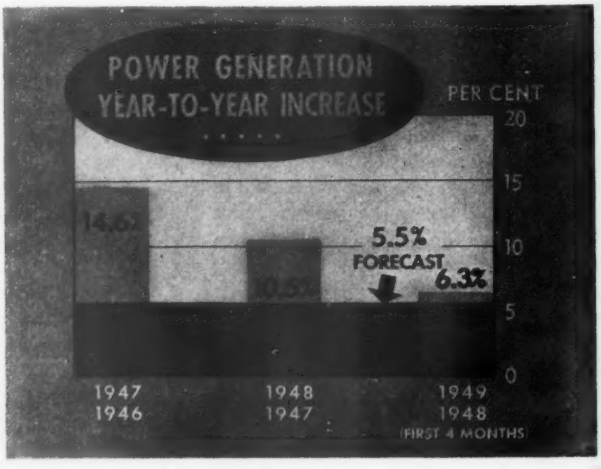


Fig. 2—Annual Increase of Power Generation 1946 to 1949

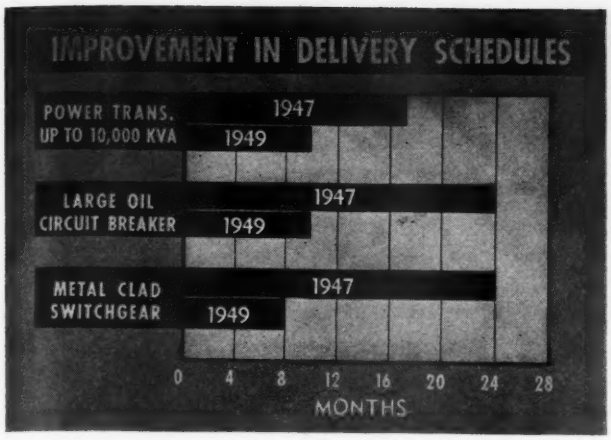


Fig. 3—Heavy Power Apparatus Delivery Schedules

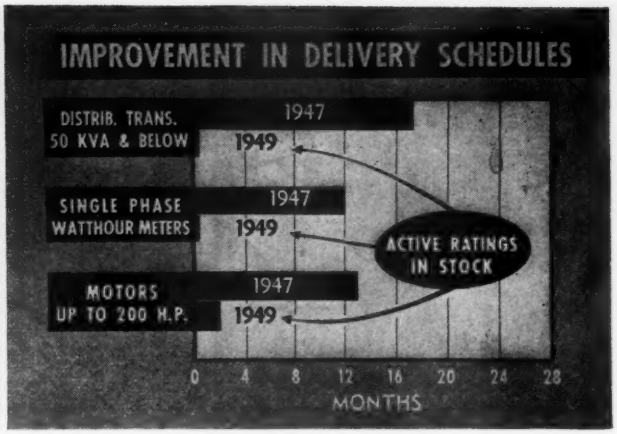


Fig. 4—Delivery Schedules for Distribution Apparatus and Motors

production demand had at least gotten pretty well in step.

There is also improvement, in the production situation, in three other lines of heavy power apparatus (see Fig. 3). Equally impressive improvement has been made in delivery of distribution apparatus and motors, Fig. 4—many of the active types and ratings are now in stock.

I think that the electrical manufacturers generally have expanded to meet the requirements of industry. The three larger manufacturers, Fig. 5, are typical of the industry. Their output on a dollar basis last year was about five times what it was before the war (see Fig. 6), and this was done with an increase of 150 per cent in investments in plant and equipment.

Even with no capacity bottleneck, it may still be questioned whether now is the time from an economic standpoint to start aggressive selling. In manufacturing there may be a short period during which lower volume will bring more profits. For example, we can cut out expensive overtime, carry out cost reduction programs, eliminate the operation of inefficient plant sections, and we can also save money on such basic commodities as steel. First results of operation at a lower level may lull us in the manufacturing industry into thinking we do not need aggressive selling RIGHT NOW.

Deceptive Temporary Conditions

Also, in the electric utility industry, you will have a period during which operation with greater reserve capacity may be more profitable to you. You can shut down your inefficient generating stations. Should any load drop off, it will probably be some of your lowest price load and you may be tempted to hold off on aggressive selling because things look temporarily better from a financial standpoint.

But, any temporary benefits which will come with these lower load factors can be very deceptive and cause dangerous delays in starting aggressive selling programs.

One factor in this situation is that the electrical manufacturing industry must continue to be able to pass on to the public all of the benefits of quantity production.

The price of electrical products (see

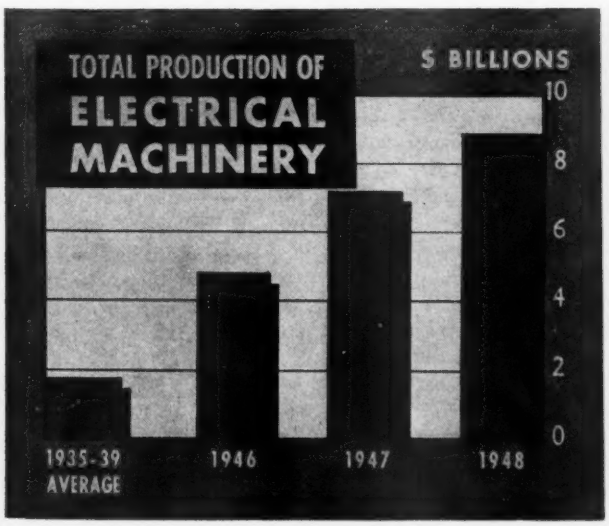


Fig. 5—Expanding Production of Electrical Machinery

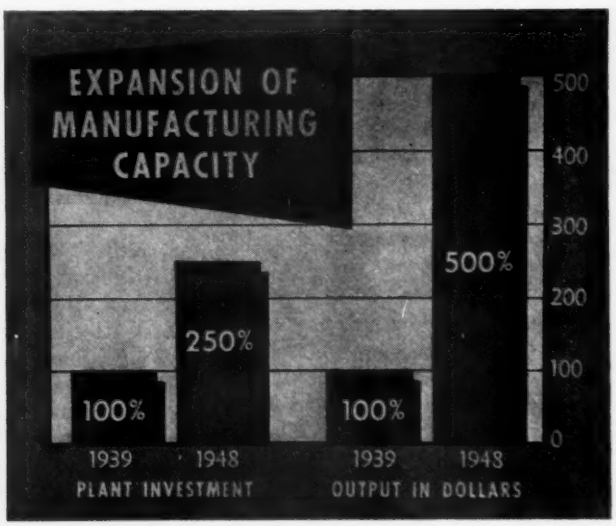


Fig. 6—Electrical Manufacturing Expansion in Plant and Dollar Output

Fig. 7—Price of Electrical Products 1939 to 1948

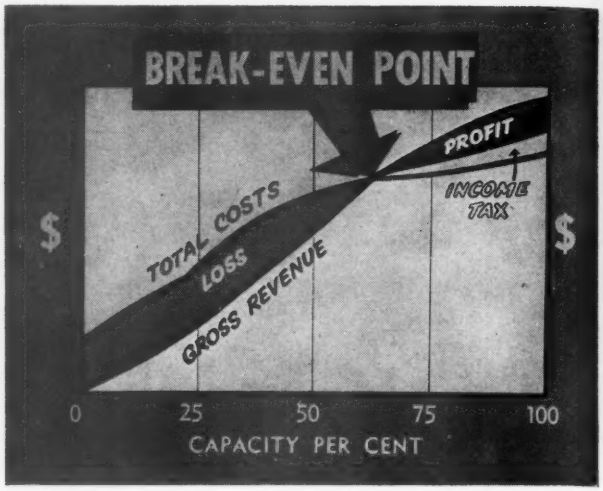


Fig. 8—Graph Showing Area in Which Minimum Customers Are Served at a Loss

Fig. 7) has gone up only 38 per cent since 1939, while material costs have gone up 76 per cent, and labor rates 90 per cent. The price index of all products, except farm, has increased 101 per cent. This situation has been possible due to greater volume and increased mass production. It is vital to continue to keep electrical products at a lower comparable level than other lines of manufactured goods, to insure our share of our customers' dollar. To do this, we must have volume production.

In the utility industry, you have also prospered by keeping the price of your product low. But, I think all of you will generally agree that your ability to do this has been to a large degree contingent upon the expanding volume of electric power.

High Load Factor

Last October, Mr. Edward Vennard, Vice President of the Middle West Service Corporation, presented a study of a hypothetical utility company. This study clearly showed the advantages of loading your plants close to capacity and the far greater resultant return to your stockholders.

This study would have shown an even greater necessity for increased selling if it had been on the basis of keeping load factor HIGH rather than just keeping reserve capacity at a minimum.

In a recent brochure discussing management's efforts to make profit with a lower volume, Ford, Bacon and Davis published a chart for a typical manufacturing company. It very clearly shows how rapidly profits go up with greater volume. I think these fundamentals also apply to a public utility company. Any company's profits are closely related to its ability to maintain volume production. This was a great lesson many of us learned again in the last war.

Selling Is A Service to Your Customers

This need for aggressive selling is not one which can be completely gauged by a study of financial reports. The electric utility industry is one of public service. One of your most important public services is to provide leadership for the electrical manufacturers, distributors, and dealers in carrying the benefits of electric power to the American people. Here are three illustrations of why this leadership is needed:

First, the industries which you serve need all of the benefits of new ways to use electric power to be competitive in their respective fields. Unless you carry to them the story of these benefits, many of them may not be able to live in today's competitive market. This is particularly true of your smaller industrial customers. This may affect the economy of the whole area you serve.

Second, if you are not aggressive, your competitors will have the advantage of competing with a complacent opponent. You are familiar with what has been accomplished in the LP-Gas field; that industry has had an aggressive sales program and it sold 620,000 ranges in 1947 and 728,000 more in 1948—this means the loss of nearly 1½ million potential users of electric ranges. Think of how much easier your range campaign would be if you had not lost these customers.

Third, at a meeting of the National Electrical Manufacturers' Association in Chicago in March, Mr. J. W. McAfee, President of the Union Electric Company, pointed out that many of your minimum customers are served at a loss (see Fig. 8). Now, while people are spending money on new homes and modernization, is the time to compete with the plumbers and interior decorators for your share of the householders' dollar and change your unprofitable customers to profitable ones.

A Great Potential Market

Also, you have a tremendous potential market for the sale of your product. Some of the private utility companies in the Pacific Northwest last year had an average residential usage of electric power of over 4500 kwhr. This is three times your national average. Even a 50 per cent increase in the residential load, where a large part of your profit comes from, would greatly improve the financial situation of any utility company.

I could keep on citing examples, but I will sum up by quoting a statement made by Mr. Philip Sporn, President of the American Gas & Electric Company, on March 29:

"There is no question in my mind that in promoting electric use we are helping bring about better production, better living, and a better society. In order to make people realize that, it is necessary to carry on continuously that process of persuasion known as selling. It, too, has always been important and has been recognized as a vital force in the de-

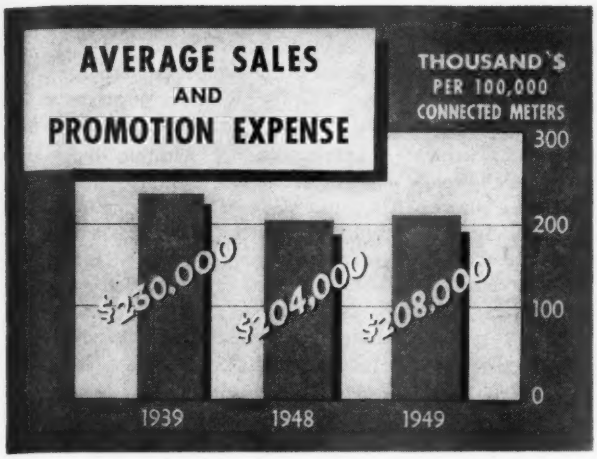


Fig. 9—Sales and Promotion Expenses 1939, 1948, 1949

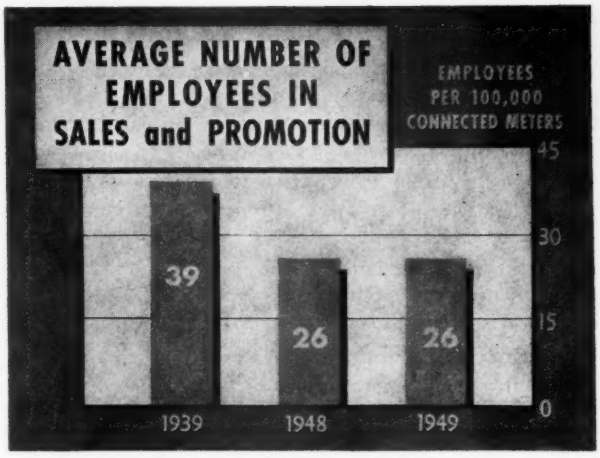


Fig. 10—Average Number of Employees in Sales and Promotion—1939, 1948, 1949

velopment of the electrical industry. Its importance was never greater than right now."

What is the Situation Today?

We wished to know how aggressively the utility industry was selling power today, so we selected a number of our key salesmen throughout the country and asked them to interview utility executives and bring back the story of what the utility industry today is doing to aggressively sell power. I think their story will be of great interest to you. This survey was made within the past few weeks and it covered 62 leading utility companies who serve about 60 per cent of the meters of the business-managed electric operating companies.

The first question asked was: *"Is your power situation such that there are limitations on the promotion and sale of power consuming equipment in the area you serve?"* Forty-five companies answered, "No," to this question. Of the 17 companies, which are limiting their commercial activities, most of them will remove these limitations in 1950 or 1951.

The next question was: *"Are you encouraging new industries?"* All except 12 said they are urging new industries to come into their area. Also, 44 of the 62 companies are urging their present customers to expand their use of power.

The next question was: *"Are you urging dealers to vigorously promote the increased use of residential, commercial, and farm electrical equipment?"* Forty-seven companies answered "yes," but 15 said they were not actively encouraging dealers to sell more equipment.

The general conclusion from this part of our survey is that roughly 75 per cent of the electric utility industry feels that it is in a position today to aggressively push the increased use of electric power.

Our survey was carried further and we asked the same utilities if they would tell us the amount of money in their sales and promotion budgets this year, for last year, and for 1939. Also, how many men in the company were devoting their time exclusively to sales and promotion in 1949, 1948 and in 1939.

While answers were not secured from all 62 of the utilities, a sufficient number gave us figures (see Fig. 9) to serve as a definite guide to the general situation.

Less Selling Today Than Pre-War

It was surprising to us that on a connected meter basis, a smaller amount is being spent today for selling than in 1939. Even when you allow for the fact that a few of the companies reduced their budgets due to going out of the appliance business, these figures are still very startling.

Consider the large increase in sales costs since 1939—higher salary levels, higher training expense, more costly advertising, etc. Also in 1939, we were coming out of a depression and most budgets were still held rather tightly; we were definitely not in a period of easy money.

Now let's consider the manpower situation. A few companies need fewer employees in the Commercial Department because they have discontinued the sale of appliances. But the many new uses of electric power in all of your markets should require more commercial employees in an average utility company. Before the survey was made, we felt sure that we would find almost as many employees per connected meter; instead, the number has been reduced by one-third (see Fig. 10). This survey indicates that the utility industry has a big job ahead in building its sales organizations.

Expanding Sales Organizations Take Time and Money

Unfortunately, aggressive selling operations cannot be turned on and off at will. It requires at least a year to build up a selling organization in a very small manufacturing company and probably two years in a moderately large company. In the Westinghouse Company, we find it takes from two to three years to train a technical graduate for industrial sales work.

In a paper presented at this annual meeting last year, Mr. George E. Whitwell, Vice President of the Philadelphia Electric Company, gave some figures which indicate that a similar length of time is required in the utility industry. Sales training programs are necessary, customer education plans must be developed, and many new techniques of mass selling must be introduced into your power sales field.

We have been working for three years to expand our sales organization so that we would be ready for the present buyers' market. It has been a costly and difficult job. It has cost from six to ten thousand dollars to train each technical graduate to a point where he can assume responsibilities as a salesman. During the past three years, we have employed for training a number equal to

about 50 per cent of the total men we now have as salesmen. And yet even with this extensive training program, our net increase in number of *salesmen* to date has been very small, due to retirements, turnover, and the length of time it takes to train them.

We Have Great Selling Problems

Another important factor is that electric equipment and electric power selling today is far more complicated than it was before the war. This is due to increased complexity of apparatus and greater ramifications in business. For example, one utility executive stated that 15 years ago a 5-and-10-cent store was considered just an incidental new commercial load of 10 or 15 kw demand. Today, a 5-and-dime store of similar size has a demand potential of from 200 to 300 kw.

In order to sell such a load, it may be necessary to have a power sales representative visit the chain-store headquarters. You may also have to bring in your specialists in lighting and air conditioning for discussions with consulting engineers in distant cities. The particular utility which I have in mind has one man devoting his full time to selling power to the syndicate headquarters of chain stores operating in their area.

An example of what can be done by utility guidance of manufacturers and dealers was illustrated last summer in a large eastern city. This utility company had excess generating capacity during the summer and was anxious to add as much air conditioning load as possible. However, in the downtown area, the secondary network system was heavily overloaded. By guiding the sales activities of the air conditioning manufacturers and dealers, this utility was able to add a large air conditioning load in the area where equipment was available to serve it, and save embarrassment in the downtown area.

So we can conclude capacities and reserves in most of the parts of the country are rapidly approaching normal and with the drop off in business, which we have all felt so far this year, many of you have kilowatthours for sale now. There is already evidence that this will be true to even a greater extent before 1949 draws to a close. We, in the manufacturing business, need orders now for equipment and products which use electric power.

You agree, I am sure, that selling can stimulate through persuasive and enthusiastic action, but this action must be brought about by an organization of sales people which cannot be bought in the open market place but must be developed. Also, I believe you will agree, generally speaking, we are ready to sell.

But, do we in the electrical industry have something real to sell and are there real rewards for selling now? First, and very important, we have new, better and cheaper ways of bringing about a still higher standard of living. This will be evidenced in finer transportation systems, more and better recreational facilities, safer cities to live in, even finer working conditions for employees, greater production per worker, and homes that are better to live in.

Also, we have an industry that challenges the very best that is in us and will continue to challenge the future generation with plenty of room to grow. The electrical industry is still a young industry and one which will develop in directions that today are only dreams in our laboratories.

But, even more important, I sincerely believe that one of the fundamentals of a free economy, which everyone of us in this hall wants for his children, is the right and the will to sell. There are no goods or services to sell in a communistic economy. Our free economy has the best and, in fact, its only chance to survive if we continue to sell a higher standard of living on a sound basis.

We, in the electrical industry, cannot be complacent. We can ill afford to make some immediate savings and a little better showing by taking it slow and not being aggressive in selling our wares today. We are one of a number of great industries and we must assume our rightful responsibility in this fight for free enterprise. Our industry will not thrive on a diet of complacency. There are those who would like to see us adopt a passive attitude. Our destiny is now in our hands—our time of great opportunity is here.

If we return to being a strong aggressive selling industry we will grow, and be free and live, but we MUST SELL to live.

The President's Address

(*Continued from page* 171)

national policy consistent with the ideals of our democracy.

In summary, I submit that our chances of survival depend not only on the character of our own performance, but also on the public reaction to the drift toward socialistic philosophies. Let us go forward, then, with a firm determination to maintain a record of service which will merit public support and let us have faith that the American people, when aroused to the dangers of socialism, will repudiate the doctrines of its advocates and refuse to surrender their freedom.

In conclusion, I wish to express my deep appreciation of the opportunity to have served you during the past year and to testify to the high standards of performance maintained by the Board of Directors, staff and committees of your Institute in advancing the interests of the electric industry to the benefit of the American public.

Section 11 and a Strong Utility Industry

(*Continued from page* 176)

ferred stock; they are payable at their maturity in 1951 not in cash but in common and preferred stock at the conversion ratio.

It is most encouraging that the great majority of utility companies have taken the longer view and have refused to entertain financing policies such as those just described. You may be assured that the SEC, for its part, will continue to stand for conservative capital structures and can always be counted upon to assist companies subject to its jurisdiction in achieving balanced financial programs.

Strong, individual operating companies and compact new holding company systems have emerged as a result of the Section 11 program. The industry has acquired the invaluable confidence of the investing public. If that confidence is fostered by sound financial policy, I feel certain that the days ahead will be the best in the industry's history.

Controlling Costs: The Power Industry's Achievement and Opportunity

By Philip Sporn

President, American Gas & Electric Service Corporation

An address before the Seventeenth Annual Convention of the EEI, Atlantic City, N. J., June 1, 1949

THE ELECTRIC power industry has within the last decade established three outstanding records of performance. I need mention these only briefly. In the war, not only was a great job done in making available all the power needed to bring to a successful termination the nation's defense and war efforts, but the power was never too late.

The distinctive part of the job, however, was not the adequacy of the supply, but its achievement with an economy and precision of means—with a finely determined minimum demand on the nation's limited manpower and resources—unapproached by the accomplishment of any other industry.

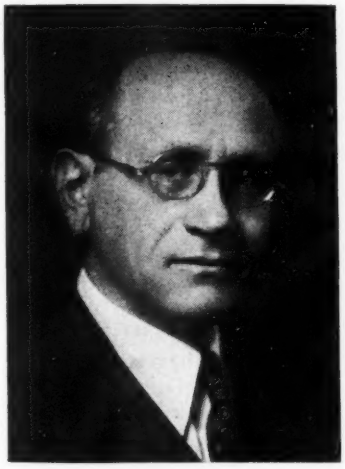
When in the face of an expected decline in demand, following the end of the war, demands for power not only did not go down but started growing at an unprecedented rate, the power industry met the new demand, and projected, and is now carrying through, an expansion program that for size and scope is unprecedented in the annals of this country's power industry or of any other industry.

The third record achievement is that, in the face of all factors that would indicate the contrary—in spite of heavy increases in costs of labor, materials and supplies, including fuel which is perhaps the most important single item of supplies in the operation of electric power systems—the cost of electric service rendered by the utilities has not only not increased, but in many cases has continued to go down during all of the last eight years; the decline was not arrested even by the heavy postwar inflation.

Our Wartime Record

The record of the industry in wartime has perhaps been well enough established. Now and then there appear some indications that warrant the suspicion that it has partially been forgotten, or even that efforts are being made to change the record. Nevertheless, I believe that we can afford to rest on the record.

But the meeting of the postwar increased demand for electric service in this country, and the expansion program that we are now in the midst of, and will most certainly complete, has elicited without question the admiration of that part of the world which has the slightest comprehension of power and its significance in the modern social-economic scheme of things.



MR. SPORN

Does the Public Know?

Have we established that fact clearly and firmly in the minds of all the people whose opinion of the character of the job we are doing is important to our welfare? Do all our municipal and state officials know it? Do our representatives in both Houses of the Congress fully grasp it? Does the general public know it? I doubt it. True, we have been saying a great deal about it in the last year or so. But we became articulate late in the day so to speak: Originally the industry tried, subconsciously perhaps, to hide the realities of its expansion even from itself.

Yet, what other nation playing a dominant part in the affairs of the world has met the challenge of the power problem as we have met it? Russia? France? Great Britain? Canada? We haven't any statistics that are too reliable on Russia, but from what we have, and from the precise information available on the performance in the other three countries, there is no question that the performance, electric power-wise, of any of the four nations that I have mentioned doesn't begin to approach the record established by the electric power industry in the United States.

Results of Foreign Nationalization

Independently of the fact that the United States electric power production is over 50 per cent greater than the combined production of Canada, France, England and Russia, the growth in production of the United States has been far greater in the past decade than in the four countries combined, and has represented an increase of 122 per cent in this country, as against a maximum of 60 per cent for the four-country combination. And it is not unimportant to point out that whereas all energy production in France, England and Russia is today nationalized, and a substantial percentage of the Canadian production is in government hands, over 80 per cent of the United States production is carried out by private industry.

But it is on the unique job we have done in keeping costs of our service down while the cost of the components entering into service have been steeply rising, that we have likewise done the poorest job in telling the true story of our achievement.

I have been asked time and again by members of regulatory commissions, by a good many of our large consumers, by professors of engineering at some of our leading schools, and by professional economists, for an explanation as to how we have been able to control costs as well as we have. The reason these people asked the question is because they truly didn't know, and they were interested. They didn't and don't know because we haven't told them: And that I think is bad.

Now why haven't we told that story? There are a number of reasons. But I

believe that perhaps the principal reason for the failure to tell this story is the lack of comprehension on our own part as to what is behind the cost performance that we have turned in over the past decade.

To the extent that that is the case, the situation is even more grave, and I would like to remedy it in this talk and to show what is behind this apparent miracle. Of course there will be time only for bringing out the highlights. But if we can find the main factors that have helped bring about the performance that we have turned in; if we chart what is ahead, and particularly whether the same factors that have been taken advantage of in the job that we have done to date will or will not still be available to us in the years to come, we should be in better shape to plan what we must do to control costs to be able to continue to keep rates down as much as they can be kept down, and so to be able to continue to make electric energy and electric service the best consumer buy in the entire social-economic field.

Analysis of Cost of Service

I believe that this is most important considering that we may not be able to complete the present expansion cycle without some further rate adjustments. Under these conditions it seems to me it is important to bring to bear on this problem all the power of analysis we possess, and specifically:

1. To point up the job that has been done to keep costs of electric energy and electric service down in the face of all the adverse economic factors that have tended to make it rise.
2. To try to determine the basic causes of the performance to date and the contribution that each cause has made to that performance, and
3. To point up those steps and processes that can continue to be taken advantage of, or that need to be further developed, to bring about further cost reduction so as to be able to maintain as closely unaltered as possible one of the basic economic supports of the industry —reduction in cost of service as service expands and develops.

If you examine the performance of the electric power industry over the decade 1939-1948 you will find that:

The noncoincidental demand increased from approximately 28,700,000 kw to 53,750,000 kw, an increase of 87½ per cent;

The kwhr generated increased from 127,600,000,000 kwhr to 282,600,000,000, an increase of 122 per cent;

The average realization per kwhr in the same period declined from 2.16 cents in 1939 to 1.79 cents in 1948, a decrease of 17.1 per cent, but the domestic realization went down from 4 cents per kwhr in 1939 to 3.01 cents in 1948, a decline of 25 per cent.

Effect of Rate Increases

It is true that over the past few years there have been some rate increases, but these have been of minor significance. Thus the total rate increases granted in 1947, 1948, and pending in 1949 just about equal the rate reductions put into effect in the immediate post-war period and mostly in 1946—both amounting to approximately $100,000,000 a year.

Except for the figures of demand and kilowatthour generation — which were 25,100,000 kw and 43,100,000 kw, and 115,078,000,000 kwhr and 228,165,000,000 kwhr, increases of 72 per cent and 98 per cent respectively—the performance of the private utility industry was otherwise almost exactly the same. All this while the BLS cost of living index went up from 100 to 171.4, the average hourly wage went up from 86.9 cents to $1.46, an increase of 68.3 per cent, and the cost of coal equivalent fuel went up from $3.10 per ton to $6.47 per ton, an increase of 108½ per cent.

How, in the face of such an expanded demand, which presumably should have required a corresponding expansion in facilities of the electric utility systems, and how in the face of the almost doubling of the costs of labor and material entering into the operation of power systems, was this apparent miracle of lower costs brought about? Let us take a look at a few significant figures:

Investment Account

The investment account of the private utility industry stood at $14,075,000,000 average for 1939 and on a comparable basis, at $16,850,000,000 in 1948; this is an increase of $2,775,000,000. Had there been an increase in utility plant corresponding to the increase in demand during the decade, the increase in investment should have been $10,400,000,000; the actual increase was, however, just about ¼ of that.

What is the answer to the mystery? Well, I believe there are at least three parts to the answer:

The most important is reduced reserves. In 1939 the reserve in generation capacity measured in terms of the demand of 25,100,000 kw was 35 per cent, but the corresponding 1948 figure on a demand of 43,100,000 kw was 5 per cent. This is not the place to discuss whether 35 per cent reserve was necessary in 1939, and whether it might have been held down to a lower figure. The contraction in the generation reserve from 35 per cent to a figure of 5 per cent, if the assumption is made that similar contractions took place in margins of reserve available in transmission, distribution, and general plant, represents an availability without any additional expenditure of plant representing a value of $3,540,000,000.

Write-down of Plant

In the same period there occurred a write-down in the plant accounts to original or aboriginal cost of approximately $1,385,000,000. Again, without going into the merits or demerits of the particular operation, it is a fact that by this process there disappeared from the books of the utility company systems, either old plant or new plant, or merely disappeared, a figure of $1,385,000,000.

If now you add the sum of these three figures, *i.e.*, actual increase in plant account, amounting to $2,775,000,000, utilization of margin in old plant of 30 per cent, amounting to $3,540,000,000; and write-down, amounting to $1,385,000,000; you arrive at a total figure of $7,700,000,000. The difference between that and $10,400,000,000 is $2,700,000,000; that represents the integrated effect of a series of factors, some plus and some minus, covering such elements as: saving in cost as a result of incremental additions at less than average costs; increases in cost as a result of higher cost indices; and savings in costs as a result of new methods and new ideas utilized in planning, design and construction.

The second basic cause of the ability of the power industry to hold down production costs has been improved economy in the use of manpower. This is easily comprehended when you note that the average number of employees in the industry increased less than 14 per cent between 1939 and 1948, while output increased 122 per cent, and demand 87½ per cent.

I have no accurate data available as to variation in the composite figure on employees cited above between construc-

tion and operation, but there is every reason to believe that the percentage relationship between construction and operation was not materially different for 1948 than for 1939, and that approximately 80 per cent represents operating employees.

Obviously, a large part of the reason for this apparent great improvement in efficiency of the use of labor is due to the contraction in the margin of reserve. It takes almost as many men to operate a plant where 20 to 25 per cent is kept in the form of reserve, as it does when the plant is operated to its capability limit, and this is even more true in the case of transmission and distribution facilities.

It is apparent also that the increased production brought about by the improvement in load factor, accounting for approximately 42,750,000,000 kwhr of the total 282,600,000,000 kwhr produced in 1948, was obtained at almost negligible increase in labor employed. Nevertheless, a substantial portion of this economy in manpower has been brought about by positive steps—by changes in designs and techniques. This, however, will be brought out more clearly later on.

How It Was Done

With these two elements determined, the analysis of the unknown becomes simpler and the apparent miracle can be wholly explained and understood on a rational basis. The basic reason for the record on costs established by the industry is a three-part one: a sharp reduction in the amount of plant per kilowatt and kilowatthour sold; less manpower per kilowatt and kilowatthour; and the integrated effect of numerous techniques and devices designed to reduce capital and operating expense.

All this is splendid as far as it goes. But there is danger here too. For while there remain unquestionably additional opportunities for incremental expansion of capacity, the opportunities aren't available to anywhere near the same extent as they were say 10 years ago.

The business of write-down to original cost has also been completed. Above everything else there is general agreement that the present margins of reserves are inadequate and that an approximately additional 15 per cent of margin will have to be restored to bring the balance between capacity and demand into proper and safe relationship.

On top of these is the fact that this additional capacity has to be brought in with startling rises in the indices of construction costs for 1948 as against 1939—for example, using 1939 as 100, we find the following figures for 1948: building cost, 210; steam-electric stations, 175; transmission line costs, 165; distribution costs, 185; total utility plant, very close to 170.

Reserve Margins and Load Factor

It is clear from all of this that some of the principal ingredients that went into the making of the apparent miracle having been used up, it will be more difficult to perform the miracle a second time. Unquestionably the infringement on the reserve, the taking full advantage of incremental costs, the saving in manpower that exploitation of margins of reserve made possible, and the improvement in load factor—which I have barely touched on but which increased some 9 points from 50.8 in 1939 to 59.9 in 1948—have been heavily responsible for keeping costs of electric service down. Between them they have accounted for perhaps from ½ to 2/3 of the total savings. The balance was contributed by scores of capital and operating savings that have been developed in that same period.

It must be apparent that in the future the latter, that is, the numerous—individually nonspectacular, but collectively most potent—small savings in costs of expansion of facilities and savings in operating costs, must be continued and developed, to an even greater extent if no appreciable rate increases are to be required to properly operate and support the expanded utility systems that are now being created. And this is certainly going to be the case if following stabilization of costs, successful efforts are to be made to once again resume a program of reducing costs of electric service.

Engineering Developments

Of the three principal approaches to the reduction of capital and operating costs that have consciously or unconsciously been developed and utilized by the utility industry, two are tied up with the absorption of margins of capacity or of reserves. The third effort has been a clear-cut, conscious approach to the problem and it illustrates again the great good fortune of the industry—its scientific and technical foundation. The ability to find solutions to new, and new solutions to old, problems by bringing to bear on them engineering developments and principles and by the general application of scientific methods, has behind it a long tradition in the industry. In this post-war expansion period, capital and operating cost reductions of major proportions have been developed, and more can and will have to be developed, and I believe will be developed.

I have reviewed not only our own work in this period, but the work done by eleven other major groups of the industry to whom I wrote and from whom I received, on the whole, excellent summaries of their individual achievements. Some of the methods or devices utilized by these groups have had broad and general application, but others have been used at most by only a few groups. Some, too, were, without question, only temporary expedients.

Since I cannot give even a complete summary of all that has been actually achieved, I have digested the information reported to me, and a summary of it will be made available.*

Local Performance

I hope that no one will take this as a complete report of all the routes that can be followed to achieve the specified end; at the most it should be taken as an extensive record of achievement against which to check one's own performance. But it will serve its purpose best if it is used as a stimulant and challenge for the further development of ideas and methods, perhaps having less general applicability, but being in each case more directly suited to the local situation.

Perhaps in every case where results along the economy route are sought, this summary should be given to the technicians and the operators in the company for study. If that course is followed, however, care must be taken that such fruit as might be gathered by this process is not entirely ruined in the budding stage by the freezing atmosphere brought on by the attitude: "Oh, this may be all right in Kokomo or Kankakee, but we do it differently on our system."

While, for reasons I have indicated above, I shall not summarize all the procedures used for cost reductions, I do wish to indicate by one detailed example the method of approach followed. I shall also try to point out the main achievements in all principal fields, indicate where promising methods have been overlooked, and what we must do further. I hope that that will clearly show that while cost indices have their place, they are not a sound basis for concluding

*The Appendix to Mr. Sporn's speech may be obtained by writing to the Edison Electric Institute, 420 Lexington Ave., N. Y. 17, N. Y.

what can or cannot be done in controlling costs of new electric power facilities, or in keeping down operating costs of electric power systems.

Cost Index of Production Plant

We can't pick a better example than to consider the case of the production plant or the generating station. Taking the cost index for 1940 as a base of 100, the index for 1948 stood at approximately 175. On this basis, therefore, the cost of a kilowatt of steam electric generating capacity, which was running between $80 and $100 in 1940, should have climbed to $140 to $175 by 1948. But as a matter of fact, millions of kilowatts of capacity have been put in at much lower figures. In the group whose reports I have summarized, one company has actually been doing a job at $100 to $115 per kilowatt. How did they do it?

They have used a great many devices. To mention some:

They have been going to larger units.

Again, many have adopted the unit idea: one boiler, one turbine, and one transformer bank to step up the capacity.

Another basic idea: exploiting the full capability of the unit and designing all the major equipment forming part of the unit for that full capability. Obviously, where a 150,000-kw unit nameplate rating actually is made to develop continuously 182,000 kw, the true cost per kilowatt cannot properly be figured on the nameplate rating of 150,000 kw.

A heavy reduction has been made in building space per unit of capacity as compared to the early 30's: reductions of 50 per cent, that is, down to one-half of what was previously thought necessary in cubage per unit of capacity, have been found possible. This obviously carries with it not only the saving in building, but the concomitant saving in piping and in cabling.

Coordinating Interconnections

Another device: a large percentage of the companies studied have found it profitable to give greater attention to the important role of interconnections and the improvement of coordination with interconnecting companies, thus making it possible to install larger units and simplify design.

There are actually three major savings involved here, because besides the two that I have just mentioned there is, in addition, a saving in reserves—a reduction in the total reserves required by as much as 5 per cent has been brought about through this action.

All of the above are major savings. But a large number have found that a great many small savings are available, which had heretofore not been fully exploited. Among these are such items as:

Reduction of housing and structure cost by placing more equipment, including some rotating equipment, outdoors. This has offered savings in cost up to $2.00 per kilowatt.

Re-study of foundation techniques has made possible reductions in cost up to $1.00 per kilowatt.

Control of concrete mixes has brought savings up to $0.25 per kilowatt.

More careful steel design and full utilization of maximum permitted unit stresses has resulted in savings up to $1.00 per kilowatt.

Closer coordination of material delivery and reduction of time necessary to complete a job has resulted in savings up to $2.00 per kilowatt.

Not all groups reporting have used all ideas, but one group estimated its savings on these apparently small items at $5.40 per kilowatt of capacity.

Construction Costs

All that I have just recounted is a stimulating example of what has been and is being achieved. On the other hand some useful tools and techniques have hardly been mentioned. Among these is the possibility of reducing capital costs of generating capacity by staggering construction between neighboring interconnected systems; the potentialities of large savings in more detailed attention to the techniques of contracting; and in exercising closer control to assure economical use of expensive construction labor.

Even if those represent failures to take full advantage of all latent possibilities, there is no warrant for discouragement. The record of accomplishment is splendid. It can be made even better in the future.

However, production plant has other features to it than initial cost of facilities. There is operation and maintenance. Here again there has been excellent and fresh thinking in many cases and for the details of all of it I refer you to the Appendix.

All the companies studied are cognizant of the importance of lowering the system heat rate, and the new generating units coming in will help bring about marked improvements in thermal performance. This obviously is the result of a conscious stepping-up of pressures, temperatures and size of units. On the other hand, only two of the companies studied have indicated an awareness of the importance of continued study of plant performance; it is, however, an item that can not be neglected.

The record is even better in maintenance costs; these have been extensively studied and brought down. A particularly excellent job has been done in developing the idea of planning maintenance. It is possible, though, that not enough attention has been given to the contribution toward reduction of cost that the lengthening of the overhaul schedule can bring about.

Labor Productivity

Large improvements (and I again refer you to the Appendix) have been made in labor productivity as a result of larger units and centralized control on the new units being installed. Yet, strangely, there does not seem to be as much awareness of the improvements on the labor productivity front that can be made in adapting the same ideas to some of the old equipment, nor of the contribution that specialized tools can make toward improvement of labor productivity.

Coal—perhaps the most important single item in the cost of operation on steam electric systems—has been given increasingly more attention than in the past; this includes the kind of fuel to employ, and the possibilities of reducing delivered costs by improvements in methods or techniques of transportation. Advantage, too, has been taken of the savings possible by long-term coal contracts. It seems, however, to be a fact that very few companies have as yet become converts to the idea that, whereas a kilowatthour is a kilowatthour, a ton of coal may not be a ton of coal, and that the obviously fair way of making sure that it is, is to introduce the Btu idea into the coal purchase specification.

Isn't this analysis—by no means complete—of method of attack, and of the many sides from which the attack was pressed, of the problem presented by rising trends of cost in the components of production plant, a most heartening one? The ingenuity and the resourcefulness with which difficulties were met and overcome, the application and utilization of new ideas involving technological changes and improvements, the elimination of all unnecessary facilities—each of these has made a vital contribution to reduction of capital and operating costs of generation facilities. If their total effect

has not been quite enough to keep costs at old levels, they have at least helped to keep them down to a level almost fully supportable by the greater efficiency and by lowered costs of operation and maintenance.

I can cover neither the transmission situation, nor, for that matter, the other phases of the electric utility system, in the same amount of detail. The data are available, however, for those who want them.

Here, too, the record is clear that a great deal of ingenuity—based upon new technical ideas and concepts in some cases, in others on the development of new tools and devices, and in still others merely on know-how as a result of cumulative experience—has been employed within the industry to bring the cost of transmitting a kilowatt down in spite of the increase in the transmission cost index of close to 70 points since 1940. This has been brought about by major savings, both in construction and in operation of facilities.

An analysis of the reports of what has been done shows an apparent lack of awareness, and I want to stress therefore, the savings inherent in a program of reducing system losses and that part of the losses having its origin on the transmission system; the large reduction in cost of transmission facilities per kva transmitted that can be developed by increasing the size of circuit conductor; and the economic gain possible through getting the maximum out of a transmission circuit in the intermediate transmission voltages by taking full advantage of the latest developments in high-speed relaying and reclosure.

Standardization of Substations

The progress made in reduction of costs of substations is particularly heartening. Here we are in a field that offers possibilities of large savings by standardization, and it has been fully taken advantage of. Not only have standard substations been developed by many groups, but progress has been made in standardization of processes involved in substation design and erection, such as standardization of wiring diagrams.

A great deal of effective work has been done in simplification of switching and I call this particularly to your attention. In a wiring diagram the switch is represented by a small box, but it is helpful to remember that one of these innocent-looking boxes on a wiring diagram can represent an investment of from $3,000 to $300,000. They need to be used sparingly, therefore; duplication or triplication of switching facilities should be resorted to only after exhaustive studies of ways of eliminating them have been carried out, and even then they shouldn't be resorted to.

Other devices utilized (as more detailed study of the Appendix will disclose) are the expansion of use of three-phase, forced-oil-cooled transformers, the wider use of capacitors, the development of automatization, and the testing of equipment to make sure that maintenance or overhaul is actually necessary before it is taken out of service for maintenance. This is in itself a great contribution to rationalizing maintenance.

On the other hand, perhaps more attention can be paid to fitting the equipment to the shape of the load curve, to the possibilities that a portable transformer—both on rubber and on railroad cars—can contribute to economy of substation transformer facilities, and to the modernization of old transformers to increase their capacity.

Distribution Economies

In the distribution field, as would be expected, the ideas and processes developed for reducing costs are more numerous than in any of the others, and they disclose a greater range of ingenuity exercised. Here, too, a detailed study of what has been accomplished is suggested, but some comments at this point may be helpful.

One is struck again with the general unwillingness to accept bare nameplate data as a basis for loading, and the search for ways of sounder loading of equipment by loading surveys. The utilization of capacitors, both switched and unswitched, to improve loading of circuits and the raising of the utilization voltage so as to make possible the carrying of higher loads—all of these are first rate.

Other ideas employed are: the utilization of larger conductors, increasing of the range of permitted voltage variation —still within acceptable limits—the more extensive development of distribution standards, and more extensive use of aluminum.

Excellent results, too, are reported to have been obtained in reducing cost of installation of facilities by mechanical aids and equipment, and by resort to a host of new small devices. A number of ingenious ideas have been developed on servicing, or on reduction of cost of servicing.

Again—and it is hard to tell how much of this is incomplete reporting and how much represents actual oversight—but more attention might be given to the economies available in simplification of standards, and to the possibilities of saving on cost of structures by resorting to fully treated wood poles.

Mechanized Accounting

In the accounting field an apparently excellent job has been done generally in the broader application of mechanical tools to carry out accounting and commercial functions. The general trend toward bi-monthly and quarterly meter reading is also outstanding. One company, for example, reports an annual saving of $500,000 by the process, and finds the new practice completely acceptable to its customers. Obviously, no matter what the size of the company may be, this is a major item of economy and cannot be overlooked by any group.

There is evident a general and great concern with the cost of paper work—an appreciation and recognition of the importance of reducing that work. The techniques for bringing that about are not reported in too great detail. Here it is important to remember that paper work and red tape in any organization have the inherent character of growth and proliferation typical of the tropical jungle.

The suggestion cannot help but be made, therefore, that in each organization there should be set up in one form or another the equivalent of a jungle-clearing squad whose function will be to cut all unnecessary forms, reports and paper procedures, to simplify them, and make each form or each additional paper operation justify itself on the basis of its contribution to a sound and economically operated system.

Selective Selling

In sales work, cost reduction obviously has had to take a different form, and excellent work has been done to increase sales and by this process reduce operating costs. There is evident an emphasis on selective selling and a strong note on expanding the sale of off-peak water heaters.

The report also brings out the difficulty encountered by a number of companies in raising their load factor due to the present great diversity in the loads already served; this suggests a possible diversion from off-peak selling to 100 per cent load factor selling. As all of those who have concerned themselves with the problem of load factor improvement are aware, there are two ways of improving

the load factor of a system: 1) filling in of the valleys, and 2) raising of the base portion of the curve lying under the minimum load point by the development of 24-hour load. One of the ways of adding 24-hour load is by the adoption of round-the-clock, two-element water heaters without any time or other control gadgets.

Well, we are coming to the end of our quest of what is behind the job of controlling costs that we have done in the past decade. I believe I have shown you that what we have done in reducing costs is no mystery, that it is all explainable, and that we are neither miracle men nor have we done it with mirrors. It is sure enough reality. And to borrow a phrase, it was by "neither chance nor mere good fortune" that this achievement of controlling costs was brought about. It was by conscious effort, by exercise of great skill, ingenuity, and enterprise.

True to Its Genius

If we accept the definition for genius as the infinite capacity for taking pains to bring about a result, then this industry—and I mean the private utility industry in particular— has been true to its genius.

Some of the processes and steps employed consciously or unconsciously to bring this about are not susceptible of repetition—having been used once, they are not available for further use. Some can be used again in the future, but to a lesser extent. But there are some that are capable of much broader development, and many of these I have tried to call attention to. I have particularly tried to direct a spotlight on items or promising points of return that had not been given enough attention or that had been overlooked.

One such item that I want to single out especially, because there has been no mention of it by any of the groups whose efforts and performance I have reported on, is organization coordination, and the economies that it can bring about or has brought about.

In all healthy organizations there is a natural amount of rivalry between various groups in the organization. Such rivalry can go, however, beyond proper limits. When that happens, what you get is more overlapping and duplication than is necessary, and less control than there should be of the natural tendency to over-expand that is inherent in all growing enterprise.

Coordination, cooperation, and efficiency will all be enormously advanced if the *spirit* of coordination is insisted upon, if the tendency toward operation on a one-man basis is fought and subordinated, and if unnecessary personnel is put into productive channels—even if that means channels outside the organization.

Corollary to putting unnecessary personnel into productive channels is the reduction of diversion of the time and effort of all personnel into unproductive enterprises—the selective control of extracurricular activities which have a way of getting out of hand, the reduction of the amount of time spent on unnecessary conferences and unduly prolonged committee and convention meetings, which all too readily can be extended to become time-wasting and expensive junkets.

All of the avenues of approach to cost reduction, that have been found or indicated, need to be followed through, and all of them that hold any promise at the end need to be thoroughly explored and re-explored if the rise in costs of electric service is first to be arrested, and if later the trend is to be put back on a downward course.

We are engaged in a public utility business. We are required to serve the public in our area and we have certain privileges in connection with that, that are of material help in carrying out our tasks. We also have certain obligations.

Our Paramount Obligation

Among these, what is our paramount obligation? Definitely I think it is that we conduct our business with a maximum possible efficiency—we need to produce our service as cheaply as possible without exploiting our labor or undermaintaining the integrity of our capital.

The power industry is undoubtedly doing an outstanding job in furnishing the people of the United States with a power supply system unmatched anywhere else in the world. Technically, it is ahead of what has been developed anywhere else. Nobody questions this. And if anyone did, the members of the scores of foreign technical delegations and commissions that have come to our shores in the last four years would quickly give an irrefutable answer.

Viewed in proper perspective, the supply of power in the United States has always been adequate. Some weaknesses in the supply structure developed during the last two years, but these have been negligible in comparison with the size of the job; they are hardly worth mentioning when the job done here is compared with the job that was done everywhere else in the world. As far as present and future adequacy is concerned, there seems to be no question that the industry is over the hump.

On cost of electric service I have shown what happened to realization: what we have done is an achievement in social economics of the first magnitude. It is true that over the past few years there have been some rate increases but these have been relatively negligible. And it cannot and must not be forgotten that the average realization in the period 1939-1948 declined from 2.16 cents in 1939 to 1.79 cents in 1948.

I have devoted most of this paper to an analysis of the three basic means we have used to accomplish this. I have taken a large part of the time I have had available to give you a discussion of the means and techniques used in the conscious, extensive, and highly effective attack carried out against rising costs of plant, and the cost of operating and maintaining it, and the carrying on of the other phases of the business. A more exhaustive study of how this has been done can be made to advantage.

But it is even more important that we use the experience of what has been done in the past as a guide and as an inspiration to develop other and new ideas, and to exploit the old ones to their maximum, so as to be able to continue to meet the basic test of giving the service required at minimum cost.

While what we have done is a good job, we can't stand still. It seems to me that it is imperative that we continue to strive to improve: that we pioneer, experiment and develop the new. And having tried something new, we must retain and expand that in it which is good and reject the bad.

While doing this we must continue our search for something better—for the almost unattainable. Only if we do that can we be sure that we are meeting and will be able to continue to meet our responsibilities.

(The Appendix to Mr. Sporn's speech is available on request to the Edison Electric Institute, 420 Lexington Ave., N. Y. 17, N. Y.)

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Minding Our Business

By Charles E. Wilson
President, General Electric Company

An address before the Seventeenth Annual Convention of the EEI, Atlantic City, N. J., June 1, 1949

WHILE I was in England not so many days ago, a financial writer for the United Press wrote his annual feature story about the so-called "Billion Dollar Club" of American corporate business. Somebody clipped out the story and saved it for me, and there was just one line in it—written I am sure with no malicious intent—which I thought was worth calling to your attention today.

The "Billion Dollar Club," as you no doubt know, consists of those 56 American corporate enterprises which in 1948 showed assets of more than a billion dollars. The list includes Consolidated Edison, Commonwealth and Southern, Pacific Gas and Electric, Commonwealth Edison, American Power and Light Corporation, and well down the list, the General Electric Company, so you see that even though ours is a very young industry, we are at last beginning to get a little recognition here and there.

Assets and the National Debt

There was a time in history when it was a comfortable and stimulating thing to have your assets showing. Now I am not so sure. This financial writer pointed out that the continued expansion of the national economy was reflected by the fact that the combined assets of these 56 companies aggregated well over 129 billion dollars, or more than 7 billion greater than a year ago. Then there follows the sentence which blew over my spine, at least, like a cold wind:

"Demonstrating the importance of these concerns to the national welfare," he wrote, "if they could be liquidated at full value the money obtained would pay off more than 51 per cent of the present national debt, which is 251 and a half billions of dollars."

There are quite a few individuals, connected in one way or another with our national government at Washington, who would regard that statement as a brilliant idea, and not just as an interesting statistic, such is the present apparent state of economic morality.

MR. WILSON

Being laid end to end and compared with the national debt, with consideration being given to our possible expendability, puts us right in the shoes of the unhappy but plump missionary surrounded by hungry cannibals, while the iron pot bubbles nearby.

Only a few days ago a Congressman from Arkansas came up with the ingenious suggestion that corporations be forced to pay all of their federal income taxes in the first six months of the year in order to convert the federal deficit into a surplus. I am not at all sure that he had his tongue in his cheek, either, although it would be interesting to discover what the next step would be in this fantastic and fraudulent type of short-term deficit financing.

And some time before that, of course, our Secretary of Agriculture, Mr. Charles F. Brannan, proposed a farm program which would effect, as *Fortune* puts it, a transfer of income from the rest of the community to a single class, not to prevent distress but as a matter of permanent right.

Alice-in-Wonderland Schemes

It is all very well for us to describe these as Alice-in-Wonderland schemes, but they can happen for us if we do not mind our business—and by that I don't mean putting our head in the sand by any means. Today, minding our business is not only sensible but necessary.

Long before there was any record of a third strike, a fourth round, a fifth column, or a sixth sense, we had what has often been referred to in the United States as the "eleventh commandment," and this is it: *Mind Your Own Business.* Actually this is an old English proverb with an established lifetime of three and a half centuries, but its usefulness keeps it fresh and unwrinkled as modern slang.

Americans have minded their business rather well, to the profit of many and the occasional consternation of a few. It is true that behind every other bush we find a critic ready to discredit our theory and methods, and also ready to take title to our assets and distribute our substance to appease the world's anguish. Such criticism, such eagerness to take over the reins from the hands of the poor old enterprise system, is a good thing if it keeps us awake to our danger.

Proper Management

In the years since the end of the war there have been many distractions — highly important distractions — which have properly commanded the attention of business. They were a part of the pains of postwar adjustment, part of the process of growing into our role of increased political and economic leadership in the world. They have deserved every bit of the priority that we have had to give them out of our experience and growing sense of responsibility for the world's well-being. We must continue to give them our attention. But the time has also come when we must allocate once more a major part of our judgment and energy and skill to the proper management of our own affairs.

It would be an over-simplification to say that our industrial and commercial machine has been running along at top speed without any attention from its operators. It has been running smoothly and efficiently, but because a lot of men planned it that way, because they poured in billions of dollars to get it in shape, and spent long hours on its adjustment. Nevertheless postwar markets cried for

goods; we were in the pleasant throes of inflation; money was plentiful; wages were high; little selling was needed to score home runs every day. Now this has changed sharply and realistically, as we knew it would.

It is high time to go back to work; to reduce costs; to live within our budgets; to quit coasting and put our back into our job. There is nothing very novel in all this. We have not forgotten how to do it. It is not our own capacity for adjustment that is wanting—but it appears that the same cannot be said for many of our partners in government. There is an alarming amount of daylight showing between their feet and solid ground, and it will take more than criticism and grumbling on our part to get them back to the good earth.

A Key Business

One of the gravest situations, and at the same time one of the brightest opportunities, in this whole business of keeping America on the track, faces the electric light and power industry. This is a key business in the mighty economy of our country. It has been built on pioneering, on individual ingenuity, on courageous private financing, on aggressive selling, on fundamental relationships with the public.

In its relatively short life it has made mistakes, it has been shortsighted, it has been humanly selfish, it has been honestly perplexed as it worked out the intricate new ground of government regulation flowing from the nature of the commodity. But along with, and in spite of all of these things, it has fantastically and almost unbelievably transformed the lives and influenced the fortunes of every individual, every home, every farm, every store, and every factory in America.

The miracle of electric power, one of the truly great miracles of modern life, is not scientific achievement but economic achievement, on a scale so vast that we have never been able to evaluate it — and so we just take it for granted.

How did this great business, in which you and I dip our hands and minds every day as a matter of course, come about? Who sat with Edison through the long hours at Menlo Park 70 years ago watching an absurd filament glow in a bottle? Was it the Department of the Interior?

Who fought through the heart-breaking disappointments of the early lighting plants, the diabolical brush-failures on the first transit systems? Was it the House Small Business Committee?

Who worked out the pioneering mathematics of alternating current? Who staked their fortunes and reputations on that ridiculous idea, the steam turbine? Who put up the money and the courage to see an infant industry through the great financial panics? Was it the Treasury of the United States, drawing in its benevolence upon the contributions of the taxpayers of the United States?

There were no floods to be controlled at Menlo Park, or in Lynn, or in Fort Wayne. Nobody in Tennessee or Missouri or New York were crying out for electricity. They were probably just laughing at it.

These are some of the things that we have in mind when we speak today of competitive enterprise, when we made promises in the name of private business, and nowhere are they better exemplified than in this industry, which is frankly under attack. It is not an attack, I am convinced, that can be met adequately with resentment and righteous hostility, but it can be met with action.

It may be true, as Geoffrey Crowther, editor of the *London Economist,* somewhat wryly observed the other day, that in 20 years we will "probably be pointing out how much superior American socialism is to British socialism because of the different spirit in which nationalization was tackled in America." At the very least we can be sure that nationalization of all American industry will be much easier of accomplishment once the electric power business has been taken over by the government—so this strikes me as a good place to stand and fight.

A Tradition of Action

There are many ways in which that fight can be waged, and you are just as aware of them as I am. First on the list of things to do is to make sure that this industry is ready to expand, finance, and develop new generating capacity where it is needed and wanted. That is our business, not government business, and it coincides with the tradition of this industry, which is a tradition of action.

Last spring, at the Southeastern Electrical Exchange meeting, one of my associates made some predictions which I would like to back up here—that on the basis of your 8 to 9 billion dollar utility expansion program extending over the next five years, total power sales would increase from 240 billion kilowatthours, in 1948, to 363 billion in 1955; and also that the latter year would see utility generation of 420 billion kilowatthours, with an increase in required generating capacity of 94 million kilowatts—an increase of 66 per cent over the present. He pointed out that our own faith in the program was represented by a 350-million dollar expansion of our manufacturing facilities, and then he proceeded to lay down a platform first presented to this group a year ago.

Electric Industry Platform

I would like to repeat it now, if you will bear with me, because it spells out in a little more detail the kind of action best calculated to make a poor prophet out of Mr. Geoffrey Crowther of the *London Economist.* Here is that platform in brief:

1. An aggressive, continuing program of plant expansion, in which the industry should point towards doubling and tripling its capacity.
2. A vigorous public relations program—the kind in which you do your lobbying where it counts, with the people in your home town.
3. A fight for sound financial results. To get the billion dollars a year in new private capital which the industry needs, your rates must be right and your earnings must be attractive, because this is about 15 per cent of the total new capital needed by all industry. This is a reasonable fight because of the demonstrable fact that the kilowatthour is still by all odds the best buy for the money that any consumer can get.
4. Maintain the tradition of this industry by recruiting the best young talent you can get for your business. Pick the new pioneers carefully.
5. Sell electric power aggressively, with all that such a program means. You may recall that an early goal of one of our own programs was a national average of 6 kilowatthours per manhour by 1950—and that average is already 5.7. Let's increase the objective.
6. Finally—keep your sights high, because that has always been the pattern in this business. Only a

government economist sees a ceiling when he looks up.

We have just remarked that there has been a sharp change in the business picture. You have undoubtedly taken your own look, and made your own estimates of what has been happening to industrial production generally, and to that of the electrical industry in particular, and you may therefore be interested in a brief note on the situation as it appears to us now, from our particular platform.

Decline in Production

It seems reasonable that the decline in industry production, now well under way, may continue until about the second quarter of 1950, when production is expected to turn up. On the basis of what has happened in other periods of declining business—the only guide we have—production may again reach the high level of 1948 by the end of 1951. There would appear to be about three reasons why we may not expect a more drastic decline in total industrial production—of something over 10 per cent (from the fourth quarter of 1948 to the fourth quarter of 1949) or about 15 per cent in total through the second quarter of 1950—

First, we lack the great speculative excesses in such areas of the economy as inventories and the stock market which featured 1920, 1929, and 1937 setbacks.

Second, adjustments in the form of curtailed production, reduced prices, and inventory control are already well along in some industries. Such a piecemeal readjustment is less serious in its affects than if all took place at one time.

Third, the large and increasing volume of government expenditures for security and construction, government support of farm prices, and the anticipated federal deficit should cushion the decline.

Generally, we feel that many businesses may be starting to live on inventories, and therefore have cut their purchases from suppliers to the bone. This may not continue for many months, however. Such a decline as the one outlined above can be beneficial medicine for industry, forcing it to get more efficient production, lower its prices, and sell aggressively.

In the electrical industry as a whole, we expect that by the end of 1949, as compared with last year, the production of consumers' goods will have been cut by at least 20 per cent, and producers' goods by about 10 per cent. This is an estimate based on the present downward trends in such major appliances as refrigerators, ranges, and washers. Radio receivers are notably down as a direct result of another kind of figure—television receiver sales are booming. Central station business should be greater this year than last, whereas industrial and transportation lines of products are down.

It is apparent that we are now to a substantial degree the victim of our own policies of earned and logical price reductions. I believe that to do as we have been doing in the manufacturing end of our industry—reducing costs through redesign and through the application of more efficient facilities—is proper managerial practice. And it is always good to pass along such reductions to the buying public as they are earned, rather than to be panicked into distress selling.

This is, therefore, a sound and realistic policy, but it appears to have had just the kind of effect you might imagine —many potential buyers who have the need and the money and the desire to purchase have become intrigued by these piecemeal price adjustments, and they are waiting to see how much farther the process will go. We have created a "wait for more" attitude in our market, which is also perfectly realistic, and once more the only remedy I know for that is hard selling of good products at a fair price.

Effect of Rising Wage Levels

In our own case, I know that the falling off in volume buying, particularly in consumer goods, has made some of our products unprofitable at present prices. This is not serious so long as it is not aggravated and prolonged by other factors. One such factor, of course, which would have disastrous effects, would be any increase in wage levels. In their present state of mind, induced by the psychological factor mentioned before, plus the threat of higher taxes and increased government spending, the customers who compose our market will not support further price increases.

Therefore, the only possible result of increased labor costs at such a time would be to put some real iron in the public's decision not to buy what we have for sale, and that will mean curtailed production and unemployment. The unreal and unsupported unemployment figures which the electrical union has been advancing will then acquire reality—and if they properly represent their membership I cannot believe that they want to produce such a result.

As you know, General Electric fought the various rounds of wage increases as they came along, and up to the point where the establishment of a national pattern by others made conformance necessary for the common good. We fought them because we felt they would produce just the inflationary effects that they immediately did produce. You might think that to be consistent now we should advocate a reduction in wage rates to properly reflect the downward turn in business. We are not doing that, as a matter of policy.

Wages Need Not Be Lowered

So long as there is a fighting chance for us to overcome the adverse psychology of this market and make our adjustments to decreased demand in terms of lower costs and harder selling, we feel that wages should not be lowered. A little statesmanship on the part of union leadership at this time would help a great deal and benefit everybody. After all, they have done more than well by their "special interests" in the years since the end of the war. They can't go on forever diluting the value of money. I would hate to think that union leadship did not have the moral courage to face its membership with the economic facts of life. If they are ever going to start being economic statesmen, why not now?

Because it bears so directly on the immediate problems of this industry in what is frankly a fight for survival, I would like to turn briefly to some considerations of bigness in business. The electric light and power industry is a long way, statistically, from being physically taken over by government, but along with all corporate enterprise, it may actually be a lot closer to that point than it realizes. That is because this is a battle for men's minds which is now going on. On the outcome of that battle, on the convictions that will be implanted in the minds of millions of our fellow citizens, will hinge the ability of this government, or any government, to move physically towards the nationalization of private business.

We have, perhaps, paid too much attention to what the President says and thinks. He is two-minded about bigness

which does not make for consistency. He has said that he would rather see a thousand insurance companies with assets of 4 million dollars than one company with assets of 4 billion, and that he would rather see a hundred steel companies instead of United States Steel, and a thousand banks in place of one National City Bank.

This is pure nostalgia for the horse-and-buggy days of business, plus a fear that while bigness may be economically good, it is socially bad. Yet the President heads a government which runs the largest insurance system in the world —the Social Security Administration; the largest bank in the world—the Reconstruction Finance Corporation; the largest grain-dealer in the world—the Commodity Credit Corporation; the largest merchant ship operation in the world—the Maritime Commission; and the largest business in the world—the United States government, which collects and spends some 40 billions a year. Apparently he wants to make all of these bigger.

The Fear of Bigness

The important fact here is not that this is what the President thinks. His two-mindedness about economic size is apparently shared by millions of Americans — and that is the real problem. Americans have feared bigness in business as long as there has been a corporation, but at the same time they have taken great pride in this same bigness. Their fear and pride, emotionally based, are both logical, and it may be that the fear predominates.

As Harold Fleming, of the *Christian Science Monitor,* has pointed out, the virtues and evils of big business up to now have been judged largely by politics or the law by varying interpretations of the rather vague anti-trust laws and no one has found time to appraise corporations on the grounds of social or economic long-term values. Judges have to do the best they can, knowing and applying the law, and they have no charter to apply the best economic or social solution to the problems that come their way. Our hard task is to put convincingly before the American people the sound and beneficial economic and social achievements of large industry.

Technological Advance

It is technological advance which has made our larger economic units both possible and more effective. The high American standard of living is provided by enormous turbine plants, steel mills, oil refineries, railroad freight facilities, wheat and cattle ranches, packing houses, chemical installations, and so on —and most people today are generally familiar with the size and cost of these units, as well as with the enormous cost of new developments involving basic research, pilot plants, and full scale production. If they do not know the exact figures, they at least know that the cost is great, and that it is still increasing.

It took only a few thousand dollars to tool up for the first automobiles, but when Ford changed from the Model T to the Model A in the 'twenties, the cost of the changeover was a hundred million dollars. There was a time when oil wells could be drilled for from $20,000 to $50,000, but today deep-drilling costs about $250,000 per well, and a recent pioneer well drilled to explore the continental shelf of the Gulf of Mexico cost two million dollars.

The initial costs of some kinds of capital ventures are so great today that it is a question in the minds of many as to whether even the biggest businesses are big enough to do the job. It makes an interesting contrast between the charge that business is growing TOO BIG and the charge that it is not BIG ENOUGH to handle modern economic developments.

Why Businesses Grow

Of course businesses do not grow simply because of an accumulation of physical assets; they grow so that they can achieve important economies in operation and service. Also their size is necessary to withstand the risks inherent in new developments—and these risks get ever larger. Only by their size and large financial resources are large corporations able to protect their organizations against loss and hard times.

This probably accounts for the fact that in prosperous times the number of smaller firms increases, but in times of declining prosperity their number decreases and their earnings fall off faster than those of larger units. It is only the largest corporations which can afford to go into basic research, the results of which may take more than a generation to be realized in products and processes, and which cost millions of dollars. Yet the fact that these things are done in America accounts in no small measure for our nation's economic leadership.

Why do large corporations enter into long-range scientific research and economic planning? Most people would say that it was in hope of making a profit—and that is a fair and honorable answer—but there is another reason not so often recognized. The primary purpose of good corporate management is to keep a company in business indefinitely. They must look ahead and plan for depression risks, competition, obsolescence, exhaustion of natural resources, population movements, fashion changes, and political attack. They must grow reserves against hard times, improve and lower the cost of their products, stabilize the security of their workers as much as possible, and make the public like and desire their company as a community and national asset.

At the Pleasure of the Public

This means in effect that companies must make money to stay in business, rather than stay in business to make money. It eliminates quick and undeserved profits and unfair policies on practical as well as moral grounds. All of those people in America who are suspicious of the motives of big business do not have to take expressions of corporate good faith on trust; they have merely to observe that no other course will allow a company to stay in business today. All business has always operated at the pleasure of the public—and that pleasure is today much more acute and responsive.

Back to the President again—he stated last fall while campaigning that "there is a growing and dangerous concentration of economic power in the hands of a few men . . . great corporations have been expanding their power steadily. They have been squeezing small business further and further out of the picture."

There is much evidence to refute this, but take only one example. The Department of Commerce studied the fortunes of 1000 American corporations in the 10 years between 1936 and 1946, and showed that the 200 largest had not grown as much as the 800 others; the total assets of the top 200 had increased 49.2 per cent, as compared to 108.1 per cent for the other 800; their sales had increased 101.3 per cent as compared to 166.8 per cent; and their net income after taxes had increased only 40.7 per cent, while that of the 800 others had increased 115.8 per cent.

I have seen, and you have access to, reports and tabulations of the Department of Commerce and the Federal Reserve Board, all of which continue to refute the President's charge. But remember this—the people probably are persuaded by such statements, and will continue to be so persuaded unless we change their minds by unremitting hard work and intelligent perseverance in stating the facts again and again, over and over.

Small Business Interests

There are undoubtedly people in the country who sincerely believe that the continued existence of the General Electric Company is harmful to the interests of what they term "small business," and yet the other day I was looking over a partial list of the suppliers and subcontractors furnishing materials and parts on just one of our products—the J47 turbojet engine. It was not even a complete list—and on it there were 208 company names, contributing their skill, creating jobs, and I hope making a fair profit out of just this one job.

The Case for Private Business

This is a long subject, and it requires hard work and considerable time to examine the evidence in order to build the right kind of case for the continuation of private business in the United States as a guarantee of economic liberty and leadership in a world that badly needs the fruits of such a system.

Let me just summarize in this fashion, and you will have to take the documentary proof on faith for the moment: If large business enterprises are no longer to be permitted to exist, it must be with the following results:

1. Fewer corporations able or willing to take large economic or technological risks;
2. Higher prices and therefore a lower standard of living;
3. Fewer opportunities in private business for career employment or lifetime employment, followed by, in many cases, an assured pension;
4. Less basic or fundamental scientific research by private industry;
5. Fewer adequate-sized private companies on which the armed services must count in case of war.

The natural consequence of a planned destruction of the economic power of private corporations would be the transfer of that power to government. It would not actually be destroyed. We would simply have big GOVERNMENT corporations.

Today the people have recourse against monopoly and inefficiency in private business, and they do not hesitate to act upon it, sometimes in the courts, but more often and more savagely in the marketplace.

No Recourse

They should remember, before it is too late, that there is no recourse against government monopoly and inefficiency —no recourse but one, that is, and it is the kind of cure that finds the patient "cold stone dead in the market." It is the kind of cure that the Congressman from Arkansas suggested for the impending deficit. Benjamin Hill, a United States Senator, said this in 1878:

> "I do not dread these corporations as instruments of power to destroy this country, because there are thousands of agencies which can regulate, restrain, and control them, but there is a corporation we may all dread. That corporation is the Federal Government. From the aggression of this corporation there can be no safety if it is allowed to go beyond the well-defined limits of its power. I dread nothing so much as the exercise of ungranted and doubtful powers by this government. It is, in my opinion, the danger of dangers to the future of this country. Let us be sure that we keep it always within its limits."

And Franklin D. Roosevelt, a governor of the great state of New York, said this in 1932:

> "Were it possible to find master minds so unselfish, so willing to decide unhesitatingly against their own personal interests or private prejudices, men almost God-like in their ability to hold the scales of justice with an even hand — such a government might be to the interest of the country; but there are none such on our political horizon, and we cannot expect a complete reversal of all the teachings of history."

Worth Fighting For

Seventeen years later, I find myself still in full accord with that remark. And 50 years after the day when, as a boy with a large appetite and certain well-defined responsibilities, I took my first job in the electrical industry, a private, capitalistic-type of business which has attained a modest success and a good reputation with the folks next door, I find that I can recommend to you without reservation this industry and the economy to which it has brought such great leadership and magnificent benefits, as a venture that is not only worth continuing but worth fighting for.

New Commercial Lighting Sales Tool Released by EEI

A NEW sales tool for use by commercial lighting salesmen, in the form of a compact slide viewer with a set of 43 full-color slides which illustrate outstanding commercial lighting installations, has been released by the Edison Electric Institute as a part of the industry-wide Planned Lighting Program.

The viewer, small enough to fit in the palm of the salesman's hand, can be used at any convenient outlet. Weighing only 20 ounces, it can be readily carried by the salesman and is intended for use on the customer's premises, providing on-the-spot demonstrations of Planned Lighting's effectiveness as a sales and profit builder.

The set of 43 color slides which accompany the viewer have been selected to show examples of Planned Lighting installations in typical stores, offices, schools and eating establishments. Photos of good local lighting jobs can readily be added to the set, and full instructions for this are furnished with the viewer.

The viewer and slides are supplied in a sturdy metal case, complete with viewing screen, magnifying lens and electric cord.

The viewer and slides are available to EEI member companies at $15 per set. The viewer alone is priced at $5, and the set of slides is priced separately at $10. To non-members of EEI, prices are as quoted plus 10 per cent. Viewers and slides may be ordered from Edison Electric Institute, 420 Lexington Ave., New York 17, N. Y.

Outlook for Utility Financing

By Harold H. Young
Partner, Eastman, Dillon & Company

An address before the Seventeenth Annual Convention of the EEI, Atlantic City, N. J., June 1, 1949

THE industry has a big job ahead in connection with utility financing, but let me say at the outset that I am convinced that success is assured if the task is approached aggressively. The problems involved can be simplified somewhat through cooperation and mutual understanding between the electric industry and the investment bankers. I hope I may be able to contribute a few observations today which may be helpful in this connection.

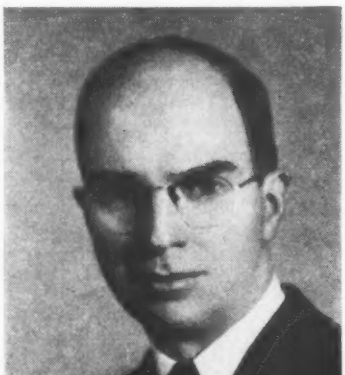
Utility Bonds Popular

The most obvious topic to mention first is senior financing. Sales of mortgage bonds represent the least of your worries. There is no let-up in sight in the demand for good public utility mortgage bonds. This is partly because of today's pattern of savings.

Individuals find it increasingly difficult to set aside any substantial sum over and above their operating expenses and taxes but they are carrying large amounts of life insurance. Retirement income plans are popular. Many corporations are setting up pension funds for their employees. Consequently, insurance companies and the banks which act as trustees for pension funds have huge sums of money coming into their hands to invest every month. Large amounts of bonds are purchased and, of course, public utility bonds are very popular in this connection.

The Life Insurance Association of America, in their 1948 report for companies representing over 99 per cent of the total assets of the life insurance companies in the country, indicate that the admitted assets of these companies showed a net increase last year of more than $3,800,000,000. As long as you have such a volume of money seeking an outlet, along with other institutional demands, there would seem to be little worry about the ability to dispose of bonds.

Public utility bonds are among the mediums most popular with institutions, and the group of life insurance companies which I mentioned increased their holdings of utility bonds last year by



MR. YOUNG

the net amount of more than $1,800,000,000. Rates of interest will fluctuate from time to time but in the last analysis there is relatively little difference between a rate of 2.80 per cent and 2.90 per cent, or between 3.10 per cent and 3.20 per cent, for example.

Mortgage bond money, by almost any standard of comparison, is cheap money. There is danger that because it is both plentiful and cheap, some companies may be tempted to make maximum use of this medium of financing. Let me urge you not to yield to this temptation. Much has been done in recent years to strengthen and improve capital structures, and serious students of the problem are eager that there be no retrogression in this respect.

Backlog of Bondable Additions

Those of us who were actively interested in utility finances in the early 1930's recall all too well that heavy debt can be embarrassing. To be sure, we do not expect the set of conditions then existing to recur. However, despite the fact that there are no serious clouds on the horizon at present, the time might come when equity financing could not be done as readily as it can be today. In such a situation it would be good to have a backlog of bondable additions against which mortgage bonds could be issued and to have your general credit condition sound.

A few companies have made some use of debentures in the recent past, in lieu of mortgage bonds, with the avowed purpose of holding bondable additions for possible future needs. This line of approach might have some merit so long as the debentures are used instead of bonds.

I am not advocating the use of debentures where equity securities ought to be sold to maintain satisfactory ratios. While there may be nothing sacrosanct about financial standards set up in recent years, they have been developed after careful study and observation and they are entitled to respect.

Preferred Stock Financing

The volume of preferred stock financing has been relatively low in recent months although it has been showing signs of revival. To understand this situation, it is necessary to trace what has been going on in the preferred stock market in the last few years.

Historically, the buyer of preferred stocks was the private investor who was attracted by high yields. When I was a kid in the business in the 1920's, the going rate for preferred stocks was about 7 per cent. In more recent years, this rate declined and, after a while, the average return on preferred stocks was so low as to discourage further interest on the part of most private investors.

At this particular point, institutions were having difficulties putting their funds to work, partly because of the drying up of new mortgages during the war years. Many institutions stepped into the preferred stock market with avidity and yields were driven to low levels which were unprecedented. Some companies were successful in financing with preferred stocks at yields of less than 3½ per cent. In due course other avenues opened up for the investment of institutional funds and the insurance companies lost interest in preferred stocks. With changes in general money rates, the returns on these issues rose into the area from 4 to 4½ per cent,

with the result that institutions saw preferred stocks, which they had purchased at 100, selling at 80 to 85.

Naturally, this experience left them in an unhappy frame of mind and contributed to a chilling of their enthusiasm for these stocks. One problem as to preferred stocks in portfolios of insurance companies is that in most cases they must be carried for valuation purposes at market values while bonds may be carried at amortized values.

Sinking or Purchase Funds

Many institutional buyers point out that they may purchase a bond at the wrong phase of the money market and see prices decline subsequently but at least their investment is restored at the maturity of the bond. On the other hand, they may purchase a preferred stock at the wrong time and, because there is no obligation to retire the preferred, they may never see their money intact again. This line of approach has led to something rather novel in utility preferred stock financing—the creation of sinking funds or purchase funds.

The sinking fund involves a commitment to retire a specified amount of stock annually while the purchase fund retires stock only if it is available at or below the original issue price. A satisfactory sinking fund gives a preferred stock many of the attributes of a long-term debenture, but some utility companies object to such a fund as adding to their problems of raising capital. Recent sales of preferred stocks suggest that it is entirely possible to sell these stocks without sinking or purchase funds but some institutions still indicate they would be happier with them.

It appears at present that preferred stock financing can be done in greater volume than that prevailing for some time if the companies will accept the fact that the return to the investor may have to be from around 4¼ to 4½ per cent for the better recognized names, and 4¾ per cent, or even higher, for the less favored names. Some institutions take the attitude that a spread of 1½ per cent between the return of a company's bonds and the return on its preferred stock should be regarded as fairly normal.

Certainly, utility executives would do well to recognize that there is little chance of doing preferred stock financing again as advantageously as it was done in 1946. A rate of 4½ to 5 per cent is much more normal and still is economical as compared with the 6 and 7 per cent of the old days. Obviously, spreads paid to underwriters must be reasonably generous as these preferred stocks are not sold with the readiness with which bonds are sold.

Lessening of expansion activity among industrial enterprises might very possibly influence institutions to renew some of their former interest in utility preferreds. With a realistic viewpoint toward prices and spreads, preferred stocks can be sold and are a desirable medium for a certain segment of the over-all financing program.

Questions are raised occasionally about the use of convertible securities, either debentures or preferred stock. Convertible securities used in the proper place can be very helpful, but if used ill-advisedly, they can be a serious handicap. My feeling is that they serve a useful purpose when a company foresees a definite set of circumstances arising in the future, such as a favorable change in dividend policy, which will make its common stock sell higher than it is selling at the time of the financing.

Convertible Debenture Issues

Probably the two best examples of companies which have successfully used convertible debentures in recent years are Public Service Co. of Colorado and Public Service Co. of Indiana. Both companies put out convertible debentures in 1947 and the conversion was completed by the Colorado company in late 1948 and by the Indiana company in the recent past. The net realization to the company was definitely higher in both cases than it would have been if the stock had been sold at the time the debentures were sold. However, both companies had in their favor a change in dividends which made their common stock more attractive and which could be foreseen at the time the debentures were sold.

The danger in convertible securities lies in their use when there is no foreseeable change in status of the common stock but where there is dependence, rather, on a general improvement in the equity market to make conversion attractive. In such a case, a company may find that in the absence of market improvement, conversion has not been stimulated. When new equity financing has to be done, the presence of convertible securities in the financial structure may be a deterrent because conservative analysts often look at earning power, giving effect to potential dilution through the conversion, even if conversion has not taken place.

Sales In Utility Common Stock

Turning now to the common stock market, the picture is a more cheerful one than we have had in some time. If I had been filling this assignment a year ago, I would have had to point out three recurring objections raised when purchases of utility common stocks were suggested. These were: (1) that utility companies were caught in a squeeze between increasing costs on one hand and allegedly inflexible rates on the other; (2) that the huge amount of financing to be done would hold down the level of common stock prices and (3) that the divestment of operating company common stocks by holding companies would create a heavy supply of stocks to be digested. Many of us did not subscribe to these premises but the fact remains that many buyers thought along the lines indicated.

The more favorable feeling toward utility stocks, which began to be in evidence around the turn of the year, was brought about in considerable measure by the change from an atmosphere of inflation to one of deflation. When commodity prices began to level off, and subsequently to decline, people were ready to concede that the utility companies would be affected favorably, rather than otherwise. Also, they recognized that if we were to have some modest recession in business, utility stocks might be owned more safely than industrials or rails.

Recent Utility Equity Issues

As a result, in recent months we have seen excellent buying in utility common stocks and the demand is continuing. For example, we saw the sale of New York State Electric & Gas common by its parent, General Public Utilities, in a transaction involving more than $35,000,000. A utility equity deal of this magnitude could not have been handled nearly as satisfactorily a year ago. The success of all the offerings of stocks for new money has helped to dissipate the fears that these deals could not be carried through and people now realize that holding company divestments are coming in orderly fashion so that there will be no unmanageable flood of stocks from this source.

The price structure of utility commons has already strengthened. I am in-

clined to give encouragement to any of you who need equity capital in the near future to take advantage of the good demand which now exists. This should not be interpreted as urging all of you to go back to your offices and file registration statements next Monday morning as one of the problems we have in the financing field is the scheduling of new issues. There is room for a lot more cooperation in the spacing of dates for offerings of utility securities, both debt and equity.

Pre-emptive Rights

If we are in agreement that common-stock utility financing can be done at the present time, let us think a moment about the best methods. Some of you are in states where pre-emptive rights are established by law but others of you can make a decision as to whether to offer new stock through rights to existing stockholders or through an underwritten offering to the public. There is not necessarily a definite answer to this question as there is something to be said on both sides.

Obviously, rights involve a certain amount of expense and nuisance which you would like to avoid. On the other hand, if your stockholder relationships have been well cultivated over the years you can count on a certain degree of loyalty from your stockholders in making additional stock purchases when you present the opportunity. We have observed that an investor might not come to his security dealer's office and say he had money to invest, but if rights come to him from one of his companies he will go "under the mattress" or into the "piggy bank" and come up with the necessary funds to exercise the rights. By and large, the utility investor is of a conservative type, who often is prone to look on himself as really a part owner of a business.

Dealer Commissions on Rights

If you issue rights, I urge you to consider seriously the payment of commissions to dealers for getting the rights exercised. This device has been used by a number of companies with satisfaction. This suggestion is not the plea of a hungry investment man, seeking a handout, but rather a statement of the case that there is gain to a company in having the dealers working for them, and also that a dealer is entitled to fair remuneration for the work he does.

Many of you whose chief contacts are with big investors may not realize what goes on with the small investor who has bought a stock on the recommendation of his security dealer. He takes the rights into that dealers' office and asks "What shall I do?" If the dealer advises that they be exercised, more likely than not, he tells the dealer to go ahead and attend to the details. The amount of time and out-of-pocket expense incurred by the dealer in such a transaction is substantial, and in the absence of a commission, it is a dead loss to him. Certainly he cannot afford to search out his customers and urge them to subscribe to the new stock as you would like to have him do.

There is valid objection to attempting to insure success of a rights offering by pricing the stock substantially below the existing market. In the first place, such a policy tends to destroy a substantial amount of market value as operations of *arbitrageurs* depress prices. In the second place, an investor who decides to sell his rights may do so and look on the proceeds as a generous extra dividend, not realizing that, in effect, he has sold a part of his capital investment.

Exchange Listing

The question as to whether stocks of utility companies coming on to the market for the first time should be listed on an exchange is a controversial one. As I am identified with a house which has both exchange memberships and over-the-counter distribution, I can speak dispassionately. I feel there is merit in having the stock seasoned for a period in the over-the-counter market, especially if the company is small or off the beaten track.

Some of these companies probably should have their shares in the over-the-counter market more or less indefinitely. On the other hand, with suitable seasoning, the larger and better-known companies can advantageously list their shares, particularly when a substantial interest has developed on the part of institutions, as such buyers usually prefer a listed market. Blue-sky laws in some states favor listed stocks.

However, when there is real missionary work to be done and a story needs to be told which requires time and effort, the contribution which dealers in unlisted securities can make through their retail sales organizations is important and valuable.

An objection raised in some quarters to the purchase of utility stocks is the failure of the industry in recent years to show gains in the balance of earnings for its common stockholders commensurate with the growth in business. In fact, composite figures for the industry have been very disappointing in the small increases on the bottom line, especially in view of new capital invested.

"Not A Growth Industry"

Of course, many individual companies have done better than the average for the industry. A while ago a trust officer of a bank told me that his institution did not approve utility stocks for trust accounts which could buy common stocks because, he said, "The utility industry is not a growth industry." Noticing that I was startled by this observation, he went on to say that he recognized that the business and revenues of the industry were growing but that this did not show up in higher earnings for the common shares.

I feel strongly that this problem is one which utility companies must recognize and face. While there is a certain segment of the investing public which is satisfied with stability, I fear you cannot sell the amount of common stock you have got to sell unless it is possible for the purchasers to look ahead with hopes of higher earnings and dividends as time goes on.

If you feel you can show improved earnings for your shareholders only by getting higher rates, then I urge you sincerely to go after them. Over the years the electric industry has been so successful in consistently reducing rates that I recognize that some executives are reluctant to reverse the trend but the problem should be faced squarely. Generally speaking, I think the regulatory bodies have been sympathetic with justified pleas for higher rates.

I notice that many executives in public utterances or in annual reports lay stress on their three-fold responsibility to their customers, their employees and their stockholders. It is interesting to contemplate for just a minute how these responsibilities have been met.

As to the customer, we all know that the quality of service today is excellent, and while there have been some modest increases in rates in certain spots in the recent past, the cost of electricity in most places is now definitely lower than in the pre-war years. This is in marked contrast to practically every other item

in the family market-basket which costs much more than it did before the war.

As to the employee of the power company, we know that his wages have been stepped up consistently. United States Bureau of Labor Statistics show that the average weekly earnings of employees in this industry were $35.10 in 1940 and $60.77 in 1948. Furthermore, this is only a part of the story as we must consider also what has been done for the employees in the way of retirement plans and other so-called "fringe" benefits in recent years.

Representative Returns on Common Shares

Now, let us see how the common stockholder has fared in the same period. I picked a list of eleven representative, well-known utility companies whose common shares were in the hands of the public as far back as 1940. If an investor had owned one share of each of these stocks in that year, his combined dividends would have been $25.53½. The return on the equivalent holdings in 1948 was $24.04½. In other words, he would have received a slightly lower return last year, and if we even mention the purchasing power represented by that return, the story is a sorry one.

I leave it to you as to which of the three groups you are working for has come out on the short end. I touch on angles, such as this, because I think you should know what factors may be deterring some people from buying your common stocks and what you can do to make them more attractive.

Passing from the general problem to the problem of the individual companies in raising equity, I want to remind you that while you may be engaged in a non-competitive enterprise so far as your service is concerned, you are in a highly competitive situation in respect to your securities, and more especially your stocks. It behooves you to spend conscientious time and effort in getting the story of your company before the investing public and especially before investment dealers and others who make recommendations to the ultimate purchasers. Your stock will be passed by if these advisers are unfamiliar with it.

From time to time, questions are raised as to the wide disparity in relationship between the earnings of various companies and the prices at which their shares sell. We speak of this relationship most frequently in terms of the price-earnings ratio. This subject would be broad enough in itself for a talk, and it is a subject I have studied carefully.

May I say that the results of these studies have convinced me that the most important single influence on the price-earnings ratio is the proportion of earnings on the common stock paid out as dividends. If you want to get the best price for your stock, as you sell it, and if you wish to gain the loyalty of your stockholders, you should contemplate a dividend policy as generous as good judgment dictates.

There are two schools of thought about raising common equity. One group favors keeping dividends low and retaining earnings to as high a degree as possible so as to minimize new financing, while the second group favors the payment of a fair dividend and the raising of new funds from sale of additional stock, as needed. My vote is cast unhesitatingly for the second approach.

A big reason for the sensitivity of the market to dividends, rather than earnings, is that the investor who buys operating utility common stocks generally is a conservative individual, interested to a considerable extent in income. Obviously, these stocks are not vehicles for wide speculative gains. If the purchaser is interested in income he is willing to pay more for those earnings which come to his door every quarter in the form of a check than he is for earnings plowed back for reinvestment. In other words, "a bird in the hand is worth two in the bush," as far as the average stockholder is concerned. Furthermore, since the earnings are his, he would welcome the opportunity to decide, himself, whether to reinvest them.

Some companies seem strangely reluctant to raise their dividend rates in the face of earnings which would seem to warrant higher disbursement and, in my opinion, this is a shortsighted policy. Obviously, it is impossible to set a figure which is universally appropriate as to the proportion of earnings which should be disbursed as dividends, but I do urge you to review your own situation to see whether you are playing fair with your stockholders in this matter.

Competitive Bidding On Bonds

One other matter, I wish to mention in passing, is competitive bidding. This seems to be pretty well recognized now as standard procedure in the sale of utility bonds. Unfortunately from the standpoint of the investment business competition has become so keen that the spreads to dealers on competitive bond deals are woefully small. They are utterly inadequate to compensate for the risk and for the amount of time as well as out-of-pocket expense which is involved for each competing group.

You may rightfully say that it is our own funeral and a situation of our own creation. This is true to some extent but I want to point out that if the situation continues as it is, there is a danger that the investment business will not continue in a strong and healthy condition and you certainly need a strong and healthy investment banking industry to raise the huge amounts of funds you are going to need.

Competitive Bidding on Equity Securities

Competitive bidding for equity securities is another matter, and here I feel there is an excellent case to be presented in favor of negotiated transactions. For a successful sale of equity issues a great deal of preliminary work is both necessary and desirable. Obviously, if a group is uncertain whether or not it will be the successful bidder, promotional work must be held to a minimum. This means that the issuing company must suffer, both as to the price it receives for its securities, and the type of distribution which its shares get.

Another important factor is timing. With dead-line bidding, dates must be set well in advance and the issue may come to the market at a poor time whereas negotiated deals have a flexibility as to scheduling which permits the company and the dealers to agree on an advantageous time to bring the deal. Companies whose location is off the beaten track, or which are not well known to the investing public, particularly need a great deal of educational work.

It is sincerely hoped that something may be worked out whereby competitive bidding on equity deals may not be insisted upon. In respect to negotiated deals, remember that the degree of interest in your situation on the part of various dealers will vary over a period of time. You may gain new friends who could be very helpful in distributing your shares but who were not in groups which distributed your shares in earlier offerings. Fairness dictates recognizing this fact when new underwriting groups are made up.

Let me say in conclusion that those of us who work closely with utility securities are convinced that we are talking

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Vigorous, Forthright Speeches Win Industry Acclaim at 17th Annual EEI Convention

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out of bricks and mortar into working capital," Mr. Bodine said. Desirable as well as undesirable features are present in the purchase-lease plan, he said, and whether it would be advantageous in a given situation depends on several factors, such as the jurisdiction of regulatory authorities, and a comparison of tax and accounting positions under such a plan, as against direct ownership and financing.

Hon. C. Emory Glander, Tax Commissioner of Ohio, and President of the National Association of Tax Administrators, then spoke to the meeting on "protecting the taxpayer," recommending that the federal government adopt "budgeting and accounting procedures that will clearly show what spending programs are contemplated, what they will cost, and how wisely the money has been spent."

As another "desperately needed reform in governmental finance," Commissioner Glander called for a prompt study of the "crazy-quilt system of federal-state-local taxation." He charged that the "federal government is now taking such a large slice out of the total tax dollar that the tax resources of the states and their local governments are severely restricted," and indicated his belief that "countless cesspools of waste and extravagance" would be revealed in governmental units, if business-like budgeting and accounting methods were used.

"Cut Governmental Budgets"

Deploring the tremendous increase in the tax burden, Commissioner Glander said that "this trend, sooner or later, will take its tragic toll of our American standard of living. . . . The time has come to cut governmental budgets, to pay governmental debts, and thereby pave the way for ultimate tax reduction."

World War II "inflationary forces have for the time being run their course," George B. Roberts, vice president, The National City Bank of New York, New York, N. Y., told the delegates, and remarked that "for a regulated industry such as the utilities, this means a particularly welcome relief from the worst problems of rising costs."

"There should now be more opportunity for technology and for the traditionally laggard rate adjustments to catch up," Mr. Roberts said. "That the utilities have come through the inflation so well is not only a reflection of America's great need for power, but a tribute to technical and managerial efficiency of which the industry may well be proud."

Mr. Roberts warned that the "powerful trend of growth" provided by scientific skill and managerial ability and experience can be impeded by government taxes, inflationary credit and fiscal policies, and said that there is a never-ending problem in "maintaining the forces that built this country and made it great."

COMMERCIAL—PARALLEL SESSION

The Thursday afternoon commercial session, presided over by Harry Restofski, Chairman of the EEI Commercial Division General Committee, heard as first speaker, Edwin Vennard, vice president, Middle West Service Company, Chicago, Ill., who outlined an electric company sales promotion program based upon "increasing the per cent return on total investment, rather than increasing gross kilowatthour sales, gross revenue, or even net revenue."

Such a sales program, he suggested, should be primarily designed to improve load factor. "An improvement in load factor from 60 per cent to 69 per cent will enable a typical company to increase its present 4.93 per cent return to 6 per cent," he declared.

The important part rate structure plays in the success of this kind of endeavor was emphasized by Mr. Vennard. "Under present-day conditions," he said, "we need to be more scientific in our rate design so that we can be assured that an adequate increase in per cent return results from the sales effort."

Emphasizing that "wishful thinking" will not still "the voices of socialism," D. C. McKee, president and general manager of The Empire District Electric Company, Joplin, Mo., then told the delegates that, to preserve the electric industry, "our actions must continually inspire and warrant the public to oppose inroads on our industry, which will pave the way for their own ultimate socialization."

Discussing the "conflict of principles as to the relation of government to industry," Mr. McKee noted that the electric industry "has been singled out for attack," and declared that electric company sales efforts should "increase the comfort or convenience of our customers, or the economic welfare of the community we serve; we are selling services not measured by our meters." He said that "the people should be made aware that we deserve encouragement from all branches of government rather than being singled out for governmental competition."

In his discussion of selling vs. socialism, Merrill E. Skinner, vice president of Union Electric Company of Missouri, St. Louis, Mo., warned that "the one sale we dare not lose is to the people of the United States. It involves their acceptance of business management for utility operation. . . . If we lose this sale, we can forget our other problems because they will become the responsibility of some agency of government."

Mr. Skinner declared that "our competition makes its headquarters in Washington, and its grand strategy is concocted in the deeply entrenched bureaucracies of the Federal Government."

Winding up the commercial session was a showing of the new kitchen film, "The Constant Bride," now being extensively used in connection with the All-Electric Kitchen Program.

Outlook for Utility Financing

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about one of the finest types of merchandise which can be offered to the investing public. We are proud to be identified with a group which has done such an outstanding job over the years as you gentlemen have done.

As we spread the gospel of utility securities we are selling something that we believe in thoroughly. We ask your sympathetic help and consideration in keeping us posted with the facts and figures we need to do this selling job. We ask your cooperation in making your securities as attractive to the investing public as possible.

With this cooperation I am thoroughly convinced, as I said in the beginning, that the money you need can and will be raised. I pledge you the active and aggressive assistance of the investment bankers in attaining that end.

Report of the Prize Awards Committee

Presented by H. M. Sawyer
Chairman, Prize Awards Committee, EEI

An address before the Seventeenth Annual Convention of the EEI, Atlantic City, N. J., June 2, 1949

YOUR Prize Awards Committee, on which I served as Chairman, along with Ed Gushee and Clarence Law, would like to express their thanks for the time and interest of those who served as judges in determining the winners of these awards:

The Reddy Kilowatt Annual Report Contest Awards

The Claude L. Matthews Valor Award

The Safety Achievement Award for 1948

The Planned Lighting Awards

Before proceeding I should like to announce the winners of the awards presented at the Chicago Sales Conference in April; and I should like, also, to summarize some of the remarks that I made at that time about these contests.

Awards covering three prize contests were made at Chicago. They were the George A. Hughes' Awards covering the promotion of electric kitchens, electric range promotion, electric water heater promotion and the promotion of electric cooking.

The Laura McCall Awards covered accomplishments in the home service field.

The Thomas W. Martin Award covered the development of farm load.

I am sure that most of you are familiar with the terms of these contests but any one who is not can readily secure any desired information from the Edison Electric Institute. As a matter of fact, terms of the various contests, covering 1949 activities, will be released, shortly, to all member companies of the EEI.

GEORGE A. HUGHES AWARDS

The Hughes' Award winners are as follows:

Class 1—covering electric kitchen promotion:

1st Prize—Southern California Edison Company.

2nd Prize—Union Electric Company of Missouri.

Class 2—covering electric range promotion:

1st Prize—Utah Power and Light Company.

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2nd Prize—Pennsylvania Power and Light Company.

Class 3—covering electric water heater promotion:

1st Prize—The Detroit Edison Company.

2nd Prize—Pennsylvania Power and Light Company.

Class 4—covering the promotion of commercial cooking:

1st Prize—West Penn Power Company.

2nd Prize—The Ohio Power Company.

LAURA McCALL AWARDS

There are two divisions to the Laura McCall Award based on the size of the home service department:

Division A award went to Mrs. Lucie Ramirez of The Washington Water Power Company.

Division B award went to Miss Margaret Schneider of the Wheeling Electric Company.

Further, there is a third McCall Award made to individual members in the home service department of three different companies whose ideas have made the greatest contribution to the advancement of modern ELECTRIC homemaking. The winners under this *Division C* were:

Miss Kathryn Spencer, Indianapolis Power & Light Co.

Miss Elizabeth Parker, Georgia Power Co.

Miss Marguerite Fenner, Pacific Gas & Electric Co.

THOMAS W. MARTIN AWARD

The winner of the Thomas W. Martin Award was, this year, Mr. L. L. Koontz of the Appalachian Electric Power Co.

I should like to call to your attention that the terms of the Martin Award have been broadened, somewhat, covering 1949 activities.

Provision (*a*) of the Rules and Regulations previously read "Agricultural advancement within a company's territory due to the use of electricity." This provision has been amended to read "Agricultural advancement within a company's area *attributing to increased USE* of electricity."

Provision (*b*) covering rural development programs designed to build a more prosperous agriculture has been broadened to include benefits to the community and to the company even though not *directly* leading to the use of more kilowatthours.

Inasmuch as in most companies the building of rural lines is well on the way toward completion, you will notice that the Martin Award terms now more strongly than before, stress public relations and sales activities.

I should like to suggest that you read the new terms carefully when they are released. I am certain it is not necessary to emphasize the importance of building up kwhr usage and good will among our ever growing rural customers.

At the Chicago Conference, I placed before those in attendance certain views with respect to the importance of these prize contests to all of us. I stressed the advantages to be gained by publicizing them locally and nationally, and this year arrangements were made to have good pictures available and these pictures were made good use of both locally and nationally.

The donors have offered these awards in order to stimulate interest in the sales

President Charles E. Oakes (center) receives the Reddy Kilowatt Annual Report Contest Award for the *Pennsylvania Power & Light Company*, presented by Ashton B. Collins, President of Reddy Kilowatt Service, as H. M. Sawyer, Chairman of the Prize Awards Committee, looks on.

promotional fields with which they are concerned. The Martin Award has brought to us an awareness of the importance of building rural load. The Hotpoint Company has inspired all of us to real efforts in electric cookery and allied appliance usage. McCalls' Magazine has done much to bring the advantages of electric appliances to the housewife and has provided an incentive to compare our efforts, one with the other, toward gaining public acceptance of the all-electric home. The Planned Lighting Awards have given us new awareness of the potentialities in this field.

It is my belief that there are potential benefits from these contests which are not being utilized. It seems quite possible to me that each company preparing an entry may find something to correct in its own sales plans, or by the preparation of such an entry, disclose to the chairman of the board, or its president, or its chief engineering officer some of the sales problems that it faced and how such problems were solved.

If we, the utilities, do not take full advantage of the graciousness of the donors, then I seriously say to you we do not deserve their consideration.

Another thing which seemed important to me was to stress the fact that elaborate or costly entries are entirely unnecessary. Winners are chosen *only* on the basis of originality of idea and the results obtained. I told the experience of our own companies who, this year, submitted three simple, hand-prepared and inexpensive entries all of which placed among the winners, while one of our companies prepared two costly entries in 1947, neither of which won an award.

The other point on which I dwelt at some length in Chicago was the use to which these entries are put. It is my belief that they should be made readily available for the use of all companies. This in my opinion should not be limited to the *winning* entries. I am sure many, many worth while ideas are represented in the entries which do *not* win.

One of the reasons we have these conventions and conferences is to give all of us an opportunity to have the benefit of the "other fellow's" thinking and experience. A similar advantage could be gained by free access to these contest entries. It was suggested by me that committee chairmen could benefit by a study of the entries and certainly the donors could find many promotional uses for the ideas presented therein.

Far-seeing operating executives, I am certain, will recognize that the sales promotional "moratorium" is at an end. Let's take full advantage of these contests to stimulate interest and know-how to the end of higher kilowatthour use.

REDDY KILOWATT ANNUAL REPORT CONTEST AWARDS

The Reddy Kilowatt Annual Report Contest Award, established ten years ago, is open to all business-managed electric power and light companies with the object of creating greater stockholder interest and understanding of company reports and better public relations among stockholders by enabling them to better understand the company's problems and accomplishments.

Winners of the Planned Lighting Awards for 1948 are left to right: J. S. Schuchert, Duquesne Light Co.—2nd Prize Commercial; J. E. Mueller, West Penn Power Co.—1st Prize, Residential; J. M. Guillory, New Orleans Public Service, Inc.—1st Prize, Commercial; Mr. Sawyer; J. M. Stedman, Pennsylvania Power & Light Co.—Over-all Award; L. M. Holmes, Dayton Power & Light Co.—2nd Prize, Industrial; H. H. Brenan, Pennsylvania Power & Light Co.—2nd Prize, Residential; C. T. Shoch, Pennsylvania Power & Light Co.—1st Prize, Industrial.

The award is made to the company whose annual report best humanizes, illustrates and dramatizes its company's operations to the stockholders.

Judges for the 1948 annual reports were:

Merryle Stanley Rukeyser, Economic Analyst and Financial Writer.

Tom P. Walker, Vice President, Irving Trust Co.

Fischer S. Black, Editor, *Electrical World.*

H. Weston Smith, Vice President, *Financial World.*

The judges, as usual, had great difficulty in deciding on the winning reports because of the increased number of high quality reports entered.

Among the improvements, they mentioned simplification of accounting and of the language used. They stated that greater clarification and readability were apparent while retaining and expanding basic information.

The judges liked reports that described the character and location of the principal physical assets. They noted improvement in the President's message but in their opinion these messages lack punch and give too many comparative figures incorporated elsewhere in the report.

They felt that attention should be called to the forthright and concise statement of President Mullendore, Southern California Edison Company, in his annual report, particularly the statement of several paragraphs beginning:

Ray R. Nabors, Boiler Operator for the Kentucky Utilities Co., and winner of the Claude L. Matthews Valor Award for 1948, receives congratulations of the donor of the Award, Claude L. Matthews (right), President, W. N. Matthews Corp., St. Louis, Mo. in the presence of Mrs. Nabors and Mr. Sawyer (left).

"OURS IS A PUBLIC SERVICE"

"You should also be aware of the falsity of certain popular myths about your business which are assiduously cultivated for political purposes by a minority of publicists and politicians who seek to make capital out of publishing misleading fallacies about 'private power companies,' 'power trusts,' etc., and their alleged exploitation of 'power' for private gain."

The judges award first prize, this year, to the *Pennsylvania Power & Light Company* of Allentown, Pa., Charles E. Oakes, President.

Honorable Mention Certificates were awarded to:

Arkansas Power & Light Co., Pine Bluff, Ark.—C. H. Moses, President.

Central Arizona Light & Power Co., Phoenix, Arizona—Henry B. Sargent, President.

Florida Power Corp., St. Petersburg, Fla.—A. W. Higgins, President.

Puget Sound Power & Light Co., Seattle, Wash.—Frank McLaughlin, President.

The Shawinigan Water & Power Co., Montreal, Canada—James Wilson, President.

Wisconsin Power & Light Co., Madison, Wis.—Grover C. Neff, President.

Pennsylvania Power & Light Co. prize winners who helped sweep the field in the Planned Lighting Awards and took the top honor, left to right: Clarence Shoch, Manager, Industrial Sales—1st Prize, Industrial Division; J. M. Stedman, General Sales Manager—Best Program in All Three Markets Combined; and H. H. Brenan, Manager, Residential Sales—2nd Prize, Residential Division.

CLAUDE L. MATTHEWS VALOR AWARD

Mr. Claude L. Matthews has made available the Valor Award to honor acts of devotion to duty wherein extraordinary courage has been exercised in an effort to maintain or restore important electric service.

The Award goes, this year, for the second time to an employee of the *Kentucky Utilities Company,* Lexington, Kentucky. This company must be proud to be so honored and all of us, I am sure, extend our congratulations.

The young man whose courage and resourcefulness protected the lives of his fellow-workers and prevented a long power failure is Ray R. Nabors, Boiler Operator. Mr. Nabors started work with Kentucky Utilities in 1947 after having served four years in the United States Navy.

Award Judges

Our thanks go to the judges who were the same as those who served in that capacity last year:

C. B. Boulet, Director of Personnel, Wisconsin Public Service Corp., Milwaukee, Wisconsin.

H. O. Sprinkle, Manager of Operations, Monongahela Power Co., Fairmont, West Virginia.

W. R. Smith, Safety Engineer, Public Service Electric and Gas Co., Newark, New Jersey.

The citation for the Award reads as follows:

"On the property of the Kentucky Utilities Company, on October 22, 1948, in the Tyrone Power Plant, Ray R. Nabors, Boiler Operator, demonstrated high fidelity to duty by courageous action at great personal risk to himself. At the time he was in charge of the boiler plant, composed of two 150,000 lb-per-hr boilers, operating at 900 pounds pressure and 850 degrees superheat.

"A 2½-in. tube in one of the boilers failed, sending jets of steam and hot water with bricks and other debris over a wide area in the plant. Mr. Nabors was at the operating panels at the time, and was in the direct path of the escaping steam and water.

"Quick Thinking and Action"

"At great hazard to himself, and with the quick thinking and action denoting an alert and well-trained mind, he threw himself on the floor and from a prone position succeeded in removing both boilers from service, despite the conditions being such that he could not see the switches and operated them from memory.

"He received burns and other injuries but was able to escape unassisted. Mr. Nabors' instinctive action shows great courage and devotion to duty which resulted in minimizing the damage and greatly decreasing the length of interruption of electric service from the power plant."

It is employees like Mr. Nabors who have helped the industry show improvement in their accident records.

SAFETY ACHIEVEMENT AWARD FOR 1948

In 1947 the electric light and power industry accident rates were the highest in 17 years, with respect to frequency, and the highest in 9 years, with respect to severity.

Compared with 40 other industries our industry ranked in 23rd place, with regard to frequency of accidents, and in 33rd place, with regard to severity. Thus we were well below average.

In an appeal to chief executives to aid in improving this record, former President Oakes suggested that each company set as its goal for 1948, a 25 per cent reduction in the 1947 accident frequency and severity rates. Subsequently the Board of Directors established the Safety Achievement Award for 1948 to recognize companies who were successful in reaching this goal.

Judges of the entries were:

E. J. Kreh, Duquesne Light Co.

W. F. Brown, Consolidated Edison Co. of New York, Inc.

D. C. Stewart, Niagara Hudson Power Corp.

While there is much still to be done in this respect, reports indicate improvement. The frequency rate for the industry was reduced 4 per cent and the severity rate 11.7 per cent. Thirty companies achieved the goal of 25 per cent in both frequency and severity and certificates have reached them attesting to this accomplishment.

To these companies and their employees go our congratulations and may we hope that for 1949 the record will be still further improved. The subject of safety is important. It is one that deals with the well-being of human beings.

PLANNED LIGHTING AWARDS

The Planned Lighting Program was launched two years ago by the Edison Electric Institute and the Better Light-Better Sight Bureau to raise the standard of illumination in the residential, commercial and industrial markets.

While in the long history of our industry such national campaigns have been launched as the promotion of commercial cooking, sponsored by the Commercial Cooking Council, the all-electric kitchen program—first started by the Modern Kitchen Bureau and now being taken up by the present All-Electric Kitchen Committee—and the promotion of running water on the farm sponsored by the Electric Water Systems Council, this is the first national program on Lighting—our first and still basic application—designed to enlist the coordinated participation of all branches of the lighting industry; that is, wholesalers, manufacturers, contractors and utilities.

Lighting Improvements

The program is making substantial progress and in many areas there is definite evidence that the quality and quantity of lighting installations is steadily improving under Planned Lighting philosophy and practices.

To give recognition to the utility operating companies which are most effective in utilizing the Planned Lighting Program in their communities, the Edison Electric Institute and the Better Light-Better Sight Bureau announced a year ago the Planned Lighting Awards for the best in lighting accomplishments during the year ending February 28, 1949.

Judges of the entries were:

Frank R. Innes, Associate Editor, *Electrical World,* New York City.

E. J. Ingram, Sales Manager, Metropolitan Edison Co., Reading, Pa.

Marshall Waterman, Staff Assistant to Manager, Commercial Engineering Department, Westinghouse Electric Corp., Bloomfield, N. J.

Winning Companies

Certificates of merit are presented to the winning companies and cash awards to the persons responsible for the entries.

Residential Division

First Prize ($200)—J. E. Mueller, West Penn Power Company.

Commercial Division

First Prize ($200)—Mason Guillory, New Orleans Public Service, Inc.

Second Prize ($100)—J. S. Schuchert, Duquesne Light Company.

Industrial Division

Second Prize ($100)—C. J. Fuhrmann, Dayton Power & Light Co. (L. M. Holmes received the award on behalf of Mr. Fuhrmann.)

The *Pennsylvania Power and Light Company* have won *three* of the Planned Lighting Awards.

Industrial Division — First Prize ($200)—C. T. Shoch.

Residential Division—Second Prize ($100)—H. H. Brenan.

For the best program in all three markets combined, a bronze plaque to the company and to J. M. Stedman, $500.

Building Better Relations With Investors Through Financial Agencies

By Tom P. Walker
Vice President, Irving Trust Company

An address before the Seventeenth Annual Convention of the EEI, Atlantic City, N. J., June 2, 1949

ONE of the profound marvels of nature's healing processes is that which builds by-pass channels around obstructions interfering with the normal flow of life. An important artery or nerve, which is denied its full function by some foreign influence, develops tender shoots which slowly but surely find free paths to build a new network so that life may be sustained. The Greeks have given us a many-lettered word for this phenomenon. Surgeons have developed techniques to supplement these natural curative properties so that normal function may be restored before some more serious complication develops. A deft application of scalpel and suture re-establishes the connection between supply and demand, thus enabling the patient to recover more speedily.

Our Economic Anatomy

Our economic anatomy furnishes a striking parallel in the changing relationship now going on between the investor and the operating electric companies. During the past two decades, a series of circumstances, largely with Washington origin, have caused serious disturbances in the normal flow of capital from the producer to the user. Holding companies, the source of most of the capital required during the 1920's, when the industry had its first great period of expansion, are largely eliminated. The channel through which the investor furnished the funds has been broken. Now many operating companies, scattered throughout the land, compete with each other and with all other industry for the investor's favor.

Actual and Psychological Barriers

Perhaps, even more important, the investor who once thought well of your company may no longer be able or willing to be your partner. Tax laws and limitations on security trading have set up actual and psychological barriers

MR. WALKER

which have either taken many out of the investor class or driven them to other fields—notably tax-free bonds.

Thus fundamental changes restrict established economic paths just as a wound interferes with blood circulation and nerve impulses. Until old contacts are re-established or other new ones built, we shall find our financing problems increasingly difficult.

Management Turned Surgeon

Management must in a sense turn surgeon. With a skillful hand, it must nurse and accelerate the slower natural readjustment processes. For the lack of intelligent guidance, the large immediate requirements of the industry might dictate the Federal Treasury as the most comfortable source of the funds needed. The treatment indicated is embraced in what we shall call "Investor Relations." Fortunately, it is not entirely a foreign field. The job is essentially one of getting along with a new group of people.

Use of Salesmen's Tools

Those that now guide so successfully customer and employee relations, should find no great difficulty with programs to make friends and influence people in the investor group. The surgeon to the economic anatomy will use the tools of the salesman rather than those usually found in the doctor's little black bag. It is a hard market he will invade. He will require lots of drive and ingenious merchandising methods. What we shall talk about today is some of the tools he may find valuable.

Investors may be grouped into two broad classes. First, the institutions, and more or less professionals, who buy in large quantities and only after much study and research; and, second, the large group of smaller holders of stocks and bonds, many of whom are not so well informed on investment matters. The more glamorous part of any investor relations program revolves around the uninformed investor.

Conventional Public Relations Principles

Here conventional public relations principles for dealing with large groups apply directly. We could beguile ourselves for the full period with a discussion of stockholders' meetings, publicity, the annual report, information sent with dividend checks and proxy statements, and the thousand and one thoughtful considerations which, appealing to the individual, make a friend of the mass.

Public Relations Objectives

The objectives are, of course, to cause your present security holder to retain your stock or bond when he is forced to sell something—to buy your shares when he has funds for investment—and to support you and your proposals. Rather than explore this fascinating phase of investor relations, I have chosen to confine this paper to the more prosaic, but equally important, field of building better relations with investors through financial agencies.

Suppose we consider first those agencies or professionals which buy securities directly, either for their own or their customers' purposes, or for sale to others. These would include Life, Fire and Casualty Insurance Companies, Investment Trusts, Investment Bankers, Commercial Banks and Trust Companies. A second group to be considered later will include agencies which act as advisers. These are the Security Analysts, Rating Agencies, Advisory Services and Investment Counsellors. Both groups are highly informed on investment matters. Their fair appraisal of your situation depends on the facts and information available to them. The real task is to set up procedures to furnish pertinent statistics, facts and ideas at the exact point where they will do the most good.

Competing for the Investor

There are more than two thousand prosperous, well-managed companies competing for the investor's favor. It is impossible, of course, for the investor, no matter how extensive his facilities, to find sufficient time to study and analyze all of these. For that reason, any given company may easily be ignored or forgotten if complete information is not freshly and forcefully presented through a continuing program.

Institutional Investment

During the past few years, the mounting assets of institutions have caused the investment of funds to become a chief concern. The trend toward saving through purchase of life insurance, savings bank deposits and pension funds has built up tremendous sums seeking investment opportunities. The handsome response of the large life insurance companies to the stepped-up needs of the utilities came about through a natural process of demand seeking a supply. Little planned cultivation was involved.

Too Much Complacency

They still seem to have an abundance of such funds for all who will pay the price in interest rate and mortgage protection and, while at the moment there is no problem placing senior securities, too much complacency could develop a false sense of security. Insurance company leaders point out the gradual increase in the debt ratio of some companies, and the small increase in net income as compared to that of many industrial companies. Should such sentiments grow, the bloom could easily fade from the present good feeling the utility industry enjoys.

Insurance Companies

Insurance companies are not a little concerned over the growing attitude in Washington that they already own too many utility securities. You may have noticed recently that a congressman appeared at a commission hearing protesting against a negotiated sale of utility debentures to a group of life insurance companies on the grounds that the insurance industry already has too much potential control over utilities. Insurance companies are very sensitive to that sort of criticism. These warnings emphasize the necessity for active and continuing cultivation of life insurance companies by individual utilities to keep fresh this reservoir of capital for the industry.

High Investment Standards

Investment standards of life insurance companies naturally are high. Before they commit themselves to a twenty-five or thirty-year stake in your operation, they will make a searching and exhaustive study of your business and your policies. You already know the statistical factors they consider important. You also learn early in any negotiation the protective features they hold dear. These are more in the way of routine relations. There are, however, other less tangible factors which affect their decisions. For instance, they will want to be satisfied with your management policies and your plans to insure their continuity.

Personal Contact Important

One of the best ways to sell your organization is to know personally the responsible officers of several large insurance companies. Then let them also get to know your second-string men, for it is they who will carry on when you pass out of the picture. Discuss freely your financial policies and philosophy and especially what plans you may have to finance future construction.

Another important consideration not argued well by statistics, is the territory you serve. Present its characteristics in detail, any important recent shifts in population or industries, and its prospects should we run into a depression. Prejudices and provincial thinking are not easily uncovered and certainly difficult to overcome. It is well not to leave too much involving personnel or territory to the imagination. Both factors warrant your fullest and most frank personal selling to a selected list of insurance companies. Fire and Casualty companies are susceptible to the same type of cultivation. They have large utility holdings and some should be on your list for regular calls.

Investment Trusts

While not a newly come source of equity capital, Investment Trusts during recent years have become increasingly important as investors. They furnish a striking example of natural healing processes at work to overcome roadblocks in the economic system. By paying attractive commissions, they have made it worthwhile for security dealers to seek out those with small savings but little experience in the direct purchase of securities.

One of the big three in this field recently announced a plan to sell shares on the installment plan. Thus a tremendous pool of new savings is being substituted for that which tax and other governmental policies dried up in recent years. These trusts, both closed and open ended, are a fertile field for cultivation as a source of equity capital.

Investment Bankers

Let's take a look now at the role of the Investment Banker in the investor-relations picture. He must know markets, that is, the current tastes of the various types of investors. You know the value of his advice on your financial problems, how he can negotiate a private deal for you, and finally his primary function as a merchant buying your securities for resale to his customers. Needless to say, he is a most important member of the financial community.

Influence of Federal Regulation

Federal regulations have made many changes in the investment banking business. It once was the practice to have one Investment Banker as adviser, negotiator and merchant. Now, if you have to resort to competitive bidding, you may not know which group will be successful. The cost of analyzing, pricing and bidding unsuccessfully on many bond issues, in order to land a few, has not paid out well from the slim margins competitive bidding allowed. Instead of the active, aggressive salesmen of venture capital that we knew in the past, Investment Bankers are on the way to becoming sharp-penciled diviners of

what the insurance companies and their own competitors will do in any given situation. Forward-looking Investment Bankers are conscientiously trying to broaden their sales efforts to meet the needs of the electric industry for equity capital, but some will tell you frankly that the securities of other industries offer much better opportunities for profit.

Here is a necessary financial service which should not be allowed to languish. Through association contacts, individual dealings and in your cultivation of the investment banking fraternity, try to understand their problems as well as their value to you. Contribute whatever you can to maintain this important function as a virile, healthy organ in the economic anatomy.

All who deal in securities within your territories should be particular objects of cultivation. They know which of your customers have money to invest and can sell them with much less obligation to you. If you have been recently divested, you may find that your local security dealers and brokers, with some encouragement, will become active in developing customer ownership. Unlisted stocks are especially favored for this purpose and you may find it advantageous to wait a reasonable period before listing on a major stock exchange to permit broader customer distribution.

Commercial Banks and Trust Companies

I may not close this parade of agencies, which buy securities directly, without a word concerning the place of Commercial Banks and Trust Companies in your investor relations program. From the small-town depositary in the far reaches of your service area to your big city bank, your banker provides many opportunities to make easier the path between you and your security holder. He is the confidant of many who have large and small amounts for investment. He, himself, purchases your securities either for the bank's portfolio or as administrator of trust accounts.

He forms impressions from your local business conduct—the place you and your employees fill in the community, and the confidence you command from your customers. He also discusses you with his correspondents in larger financial centers and thus gives and gets clews as to your standing. He is under constant pressure from a multitude of responsibilities, and can pass fair judgment on you only if he knows your story. Take him into your confidence and be certain that his relations with you are on a mutually profitable basis. Maintain deposits in keeping with his importance in your situation and when possible, provide participation in any borrowings or corporate agency appointments you may make.

Personal Relations With Financial Circles

Your relations with commercial banks in large financial centers can also be personal and intimate. Here you will find a good place to start building an acquaintanceship in the larger financial communities. Especially, through banks which maintain well organized utility departments, can you find easy access to the particular people you will want to know. Cultivate a close-working personal and business relationship with one or more competent commercial banks in the larger financial centers. They and a few close friends in the investment banking field can become invaluable aids in your financial and investor relations programs.

Security Analysts

Now for the group of agencies which act principally as advisers to the investor. The speediest and most effective system of communication in the financial community operates among security analysts. One finds them everywhere. Each investment house has its complement—advising partners and clients, computing bids, writing circulars for customer consumption, searching for market sleepers, etc. Banks use their talents in the control of their portfolios and investment counselors lean heavily on their art. The analyst's report is the basis for the ratings published by the agencies. While the analyst is a key figure, he is seldom conspicuous, and accordingly not too easy to identify as an important point of cultivation.

The analysts' stock in trade is information. He functions best when he has masses of figures covering many years' operations and interspersed with explanatory footnotes. Utility analysts work constantly with some two hundred and fifty companies, each competing with the other for their attention. The statistical information analysts need can be found in the manuals, registration statements, confidential insurance reports, annual and interim reports, and the multitude of other data required to be supplied by the electric industry. Nevertheless, analysts are inclined to favor those for which the information is most readily available and up to date, and where they know some company official personally.

Put the analyst high on your list for cultivation. In recent years, analysts have come to recognize their importance in the investment picture and take their responsibilities seriously. In the larger financial centers, they have organized clubs which meet frequently (in New York, daily at lunch). These sessions are addressed by top-flight financial officers of nationally known companies, thus providing an opportunity to present information not easily set out in formal reports.

Utility Analysts

In New York, one luncheon every other week is given over to a utility and is attended by utility analysts from the various financial houses. A company should appear about once each year even though no financing is in prospect. Some careful advanced planning for such appearances will pay good dividends. Consult your banker or analyst friends on techniques which have proved successful. Some have found it worthwhile to put on a dress rehearsal before someone qualified to make critical suggestions. The same comments apply to the more formal information meetings required prior to competitive bidding. These may be perfunctory and many are, but they can be made interesting and informative.

Get to know a few of the leading utility security analysts well. In return for a better understanding of your operation, they will keep you advised on the reactions of the financial community to your policies and program. One way to get to know a few is to ask your commercial or investment banker to arrange a luncheon where you can meet on more intimate terms than at the Analysts Society luncheons.

A visit to your territory from one or more of your analyst friends always gets good response. Whether in small or large gatherings, the point is to get over to these analysts at every opportunity, and frequently, all the information and ideas you can muster. They will see that the news spreads quickly and the more friendly and better informed the group is, the better will be the flavor of

your securities to the taste of the investor.

Financial Manuals

Standard equipment of those who pass judgment on your operations are the financial manuals. *Moody's, Standard and Poor's,* and *Fitch's* publications are everywhere in the financial communities. The goldfish-bowl environment, in which the electric industry operates, assures much more complete and accurate statistics than for other less regimented industries. However, there still remain nuances in interpretation of the bare figures that personal contacts with these agencies can bring out. Especially is it desirable to visit such agencies, when a new issue is proposed, to be certain that every factor, whether favorable or unfavorable, is fully understood. After all, behind all these agency reports are human beings who respond to all the laws of human nature. Remember too that these agencies not only supply the information the financial community uses in its operations, and, through their ratings, a guide to the value of your securities, but they also publish advisory services which are used by all types of investors. Make the cultivation of these agencies a regular part of your investor-relations program.

One of the most impersonal contacts you have with security holders is through your corporate agencies. Until some difficulty develops, only the most sophisticated investors inquire who is the trustee of the mortgage behind the bonds he buys. Few pay any attention to which bank or trust company transfers his stock or pays his dividend. These are highly mechanized mass operations usually considered as necessary behind-the-scenes machinery. It is possible, however, to use this function to develop better understanding and good will. An hour's talk with someone in your corporate trust agencies should uncover several worthwhile ideas which, in one place or another, have put warmth and appeal in this purely mechanical procedure.

Effects of Regulation

Before concluding, I am constrained to point out the critical role of regulatory bodies in this investor-relations problem. The squeeze between fixed rates and rising costs has shaken the confidence of many who would buy utility equities. The need for adequate net earnings during this time of expansion is an important adjunct to a good investor-relations program. The investor is not willing to wait for the economies which are expected from present construction expenditures. Many commissions already have faced the situation with courage and imagination by granting rate increases. Others may be expected to respond to a well-reasoned presentation of the broad problem. Your committees will be helpful in that direction, and your friends in the financial community can assist with expert testimony and advice.

The respect and good will of the financial community is a strong foundation on which to build sound relations with present and prospective security holders. Without such support, all your plans, whether based on appeals to individuals or masses, will have increased difficulties. The most enlightened stockholder meeting procedures—prize winning annual reports, sincere welcome letters to new stockholders and any other of the more glamorous techniques—will make slow progress if there is not behind them the substantial backing of an enlightened and sympathetic financial community.

Finance—A Full-Time Responsibility

How should you approach such a program? The pattern is not too difficult to trace out, but each situation must be tailored to fit. The essential elements, as in any relations problem, are definite, intelligible and enlightened policies governing your financial operations. Once these are established and understood, next follows the assignment to some responsible officer of the administration and coordination of various parts of the plan. This man should have more than a modicum of imagination and plenty of energy and initiative. He must be able to command the cooperation of those in his organization who will help work the plan. He must have the full support and frequently the active aid of the company's top officers. As a matter of fact, more often than not, he will be either the president, financial vice president or treasurer. Except for the largest operations, his may not be a full-time job, *but it must be a full-time responsibility.*

An early step should be a careful study of present owners. Are they institutions or individuals, and in what patterns do they fall? For instance, it would be helpful to know the distribution by number of shares, sex, income brackets and geographical areas. Why did your present stockholders select your company for investment? Have there been any recent significant switches? Perhaps your stockholders came to you through a distribution by some holding company with a large following in New England because its original sponsors were highly regarded Boston bankers. If you are now independent and operate west of the Mississippi River, you may find an immediate job cut out for you in and around Boston where local investments are preferred. Such a survey will also furnish a guide to where you might find new stockholders.

Planned Public Relations

With this ownership survey should go a critical analysis of your own strengths and weaknesses with some planning along conventional public relations lines to present them effectively. Here your friends in the financial community can give you much help.

With a plan well in mind, the place to start is with financial agencies in the operating territory, but allowing no long delay in reaching the larger centers. Here you will seek first some familiar face either in a service company, an investment banking house or a commercial bank to put you in touch with those you need to see.

Or you may follow the lead of a half dozen utility and industrial companies which have already launched successful programs. Their complete satisfaction with results furnish all the proof you need that your efforts will pay off.

Your Partners and Allies

As you approach this relatively new field of cultivation, you should find confidence in the fact that financial agencies are as sincere as you are in their determination to preserve our private enterprise system. Their part of that job is to provide a free flow of savings from the investor to your companies. They know that difficulties are great for the electric power industry. They are committed as strongly as you are to the surgeon's task of reconstructing injured channels to permit the life blood of our economic system to flow freely again. You will find them willing partners and effective allies working to cement the loyalty of present security holders and attracting new ones to make certain that this essential service shall be maintained in the highest American tradition.

Public Relations and Our Fifth Freedom

By Morris Sayre

President, Corn Products Refining Company, and
Chairman of the Board, National Association of Manufacturers

An address before the Seventeenth Annual Convention of the EEI, Atlantic City, N. J., June 2, 1949

I MUST have been nodding when I agreed to speak on free enterprise as our "fifth freedom."

For, gentlemen, there is—there can be—only one freedom.

And free, competitive, individual, enterprise with free choice is the very cornerstone of our American structure of economic, political, intellectual and religious freedom.

I am not an alarmist, but I am deadly serious today when I say that America has a vital choice to make.

It is the choice between regimentation and freedom.

We can allow ourselves to be regimented into economic paralysis.

Or we can hang onto freedom.

We can drift into the total state.

Or we can fight for those principles which gave us all the good things we enjoy as a nation today.

But we've got to do one or the other. There is no other alternative.

Right to Free Choice

It seems incredible that such a choice should have to be made in this country, of all places on earth—here, where human freedom was cradled — here, where man became the master, not the servant, of government—here, where the individual still has the right to free choice.

Maybe we had better take a careful look at the freedom we have had. Maybe we should see what we have done with it. Maybe we should be certain we like it. Maybe we should be sure that we have used our freedom well—that we still want it badly enough to fight for it.

This is our danger: Man is so constituted that when he has won freedom he immediately becomes so busy enjoying it that he forgets that freedom has enemies. He forgets that freedom has a price—eternal vigilance. He tends to ignore the termites in freedom's pillars —the egomaniacs who are obsessed with a fanatical desire to control and enslave mankind.

Freedom's creative capacity was most

MR. SAYRE

strikingly demonstrated in the great westward migration in the early days of this nation.

Look at the vital part that freedom played in the epic story of early America.

Remember, it took 175 years to achieve independence for thirteen colonies with a population of three million people.

But after these thirteen colonies had proclaimed their freedom, the growth of the nation was astonishing.

During the next 57 years after the Revolution—or less than one-third of the period up to the Revolution—seven new states were established in the region immediately westward.

And those seven states had a population greater than that of the entire United States in 1790.

In the next few years still more new states were formed and admitted to the Union.

A Great Nation Created

And within a short time, as history goes, the sturdy pioneer enterprisers reached the shores of the Pacific—a continent was conquered—a great nation was created.

I have said—and I know you will agree with me—that it was freedom and freedom alone, that made possible this phenomenal development and expansion.

Specifically, it stemmed in great part from the decision of a wise and farseeing federal government—the decision that those who settled on western lands were not to be dominated and controlled by a central government.

Those who went west were allowed to form governments.

They drew up constitutions of their own.

And they joined the Union as equal partners.

It was this charter of freedom—this right of self-government—that made the great western migration a prelude to national unity.

It would not have happened — it could not have happened—had there been in Washington a little group of planners to regiment the hopes and ambitions of those free Americans.

Era of Inventive Genius

At the same time this new freedom was producing equally great development and expansion in the more settled regions of the East. During the sixty years ending in 1850, the free enterprisers of our young nation introduced thousands of inventions to completely transform the industrial processes that had been in use for hundreds of years.

All America grew—and prospered—because our people were free to achieve —free to tackle the impossible—free to win or lose according to their own capacities.

For the first time in human history, the goal of abundant production came into sight.

The Industrial Revolution—the vehicle of abundance—was given its greatest impetus when the United States of America officially recognized that freedom is God-given, that man had an inherent right to freedom, that freedom and opportunity are synonymous.

And yet Americans today, despite thrilling evidence of the plenty produced under freedom, find it necessary to turn

from their freely chosen tasks to defend the choice of their ancestors—to fight again for freedom.

It is shocking to discover that millions of Americans, people who love freedom as much as anybody else, have been intellectually drugged by Marxian dope while their basic rights are being whittled away.

It is distressing to learn that business men themselves are often willing to take a shot of the most powerful narcotic the world has ever known, the cocaine of collectivist controls, to ease the pain of temporary difficulties.

It is discouraging, to say the least, to see the procession of good Americans to Washington, seeking government help, advocating the expenditure of taxpayers' money on pork-barrel projects, compromising freedom, playing into the hands of those who would remake America in the image of a total state.

We've got to arouse the people of America, including the businessmen of our nation, to the danger of any compromise of freedom, any retreat from the ideals of the founding fathers, any tendency to sell any part of freedom for a temporary and utterly false sense of security and ease.

We've got to turn this nation from its beginning dance of death to the glorious march of freedom under God—up, ever up the road our fathers blazed for us.

What Has Happened Here?

What exactly has happened here in America?

Contrary to popular belief, the professional collectivist rarely displays publicly his grand scheme for sabotaging a nation's freedom and establishing a dictatorship. He's grown too smart to try that—in America at least.

Instead he works by stealth. He talks everlastingly about some coming crisis. Then when a natural readjustment occurs in the economic scene, he points to it with shrill alarm. He has prepared thousands of the gullible to expect a major disaster. Every drizzle becomes a cloudburst. And the payoff comes when he screams for the government to come to the aid of the masses.

What's more, he's an expert at working both sides of the street. If business is good, profits are a shame and a problem. If business turns down from inflation peaks, disaster is just around the corner. And so it goes. Without his crystal ball the collectivist would be lost.

That's the process that has been going on in America for too long a time now. Under the cover of artificially created crises, the collectivists have moved in. Each time they advocate controls that would have us march backward in a government goose-step to the days of human slavery.

Right now we're in the middle of the fourth attempt in the last sixteen years to saddle this country with government controls—from the top to the bottom of our economy.

First was the effort to jam the so-called Murray Full Employment Bill through the Congress.

Second, we were given a full-dress rehearsal of complete regimentation in the OPA.

Third came the administration's effort last year to reinstate some measure of controls—on a "standby" basis.

Softening-Up Strategy

And now the planners are at it again.

These prophets of our economic doom are picturing disastrous deflation, massive unemployment and breadlines across the country.

Their strategy is plain. Their plan is crystal clear.

A few months ago they were whipping the people into a frenzy of fear of ruinous inflation.

They were softening us up to swallow the biggest dose of concentrated government control ever proposed or even contemplated in peace time.

And this evil-smelling collectivist nostrum was labelled—God save the mark!—"The Economic Stability Act of 1949."

But the dire crisis, inflation, for which they were prescribing medicine to kill American freedom of choice, of action and enterprise under the guise of curing the economy—that crisis, to the planners' chagrin, evaporated.

So "The Economic Stability Act of 1949" went back on the shelf for the time being while the political medicine men set about to compound a new crisis —deflation.

And when we're sufficiently bewildered by the medicine men's tom-toms, when the economic charlatans of the left have again mesmerized us into seeing spots before our eyes, the bottle on the shelf will be dusted off, shaken up a little and offered to us as our only salvation.

Let's see what they would have given us to kill inflation and what they'll surely offer us again with a new label to cure deflation—if they can get us on our mental backs long enough to make us take it.

"The Economic Stability Act of 1949" or the so-called "Spence Bill" shows exactly what's in the minds of the planners, the breadth and depth of their determination to shackle enterprise, initiative and progress.

Unlimited Presidential Powers

Under the Spence Bill the President would have been empowered to conduct unlimited research and development and construct and operate pilot and demonstration plants, interfering with normal patent practices.

He could buy materials for government use and resell them to private industry for consumption in filling government contracts and national defense orders, thus dictating the fate of thousands of business concerns.

He could loan funds to private industry, and to state governments or subsidiaries, to build factories. The President could cancel the loans after they were made. He thus could virtually control the destiny of any industry if he so desired.

He could build manufacturing plants if other measures to increase supplies failed. He could make contracts with private persons to build factories, or to rehabilitate existing plant facilities, including government-built war plants.

He could create new corporations, and the Secretary of the Treasury could subscribe for stock within limits fixed by Congress.

He could propose voluntary programs for allocations and priorities.

He could institute mandatory allocations and priorities.

He could control prices and require sellers to give a 60-day notice of a price increase. The old OPA standard that prices shall be generally fair and equitable is used, but he specifically is directed to consider the level of profits in fixing prices.

He could fix agricultural prices, but not below parity.

A temporary wage board would be established. An employer who grants a wage boost cannot raise prices on this account for six months unless the board

permits. The board could approve a wage increase to compensate for increases in cost of living, to correct inequities, to correct substandards, or to maintain essential production at levels certified by the President.

The measure implements theories advanced by some government officials that under the Employment Act of 1946 the Government must take positive steps to assure maintenance of high employment.

Let's make no mistake about this. There is slight danger of communism or any form of collectivism in a healthy, expanding capitalistic economy. Communism doesn't thrive where the people are free, working, well-paid and happy.

Collectivist Objectives

The first objective of the collectivists then, is to take the fullest possible advantage of any weakness in our individual enterprise system.

They capitalize on confusion.

They prey on human failings.

They use people who want to do good.

They gloat when businessmen and other leaders urge even the slightest compromise with our traditional pattern of life.

They love every evidence of selfishness, fear, and pork-barrel conflict.

Most of all they relish any seeming failure on the part of management to make the system work effectively for all the people.

To promote the very evidences they love, the army of the Left does its level best to impair the normal interplay of forces within our capitalistic economy.

The sole objective is to weaken us. And they know that the most effective way to do this is through the medium of government controls.

Once the first controls are saddled on the economy, the collectivists' task becomes a little easier. They simply ask for more controls on the grounds that more controls are needed to make the first ones work. And so it goes—control on control until capitalism is first paralyzed, then destroyed.

Although all of this sounds discouraging, nevertheless there is a way out.

There is a solution to this serious problem of government regimentation. And that solution lies with the American people.

It is our responsibility to make the people aware that the heavy hand of big government—the same hand that first gently pats them on the head—eventually will clamp the chains of slavery around their necks.

Once the American people realize the deadly doctrine they have been fed under the label of "social progress," if they are alerted against a new dose of leftist dope, they will react with characteristic vigor and intelligence. They've slapped down grabs for power before. They'll do it again—if the grabbers are unmasked.

Let's get clear in our minds the deadly sequence that occurs when the collectivists are given a voice in government. To repeat, a little control is the first step, whether in the form of monetary meddling or the use of income taxes as a social instrument. Then comes the plea for more and more controls as each previous control fails.

Finally, when the craft of capitalism begins to flounder because of the holes shot in it by the controllers, the cry goes up for government planning.

And government planning is the parent of dictatorship, lugged in to accomplish a fair distribution of the reduced production of industry crippled by controls.

It means the ultimate rationing of poverty and misery.

Government planning can't increase production. It never has and it never will.

Man on Horseback

So eventually they have to call in the man on horseback—the dictator who will pound the life of the nation into subjection and misery. They did it in Russia. They will do it in England if the drift there from individualism to nationalism continues.

And they will do it some day in America if we don't get busy and talk to the American people.

And I really mean talk to the people! The Leftists are doing it and they're not pulling any punches either.

We—you and I—all of us, have sat idly by and let the "commies" and their unwitting dupes steal our own thunder and use it against us.

We've seen them swipe two of our best words—"republic" and "democracy"—and distort them to their evil purposes.

We've seen them steal the trademarks of our economy—such good American words as "capital"—"capitalism"—"free enterprise"—"profits"—steal them and hurl them back to us as epithets.

And while we're on that subject, I wonder how much longer we are going to be afraid of our own vocabulary.

What's wrong with "capital," "capitalism," "free enterprise," "profits"?

Isn't it about time we thundered our pride in our capitalistic economy—shouted from the house-tops the achievements of our free enterprise system—and gloried for all the world to see in the benefits we enjoy under our profit system?

Isn't it about time we called a halt to our retreat from greatness?

Begin At Home

I came here today to talk about Public Relations and Freedom. But I did not come here to talk about gigantic association public relations programs, industrywide advertising campaigns or vast radio network efforts—indispensable to the common cause as those all are.

The kind of public relations that, in the last analysis, will do the job that must be done is the individual chore of every individual manager of business in this country.

Here's what NAM is saying to its members today.

The battle for freedom will be won or lost in our own communities, in our own factories, in our neighborhood churches, and in the schools our children attend.

We, the managers of American manufacturing industry, including your own power producing and distributing companies, have upwards of twelve millions of American men and women working, almost at our very elbows, eight hours a day, five days a week, in our plants, mills or factories.

With their families, those millions, given the economic facts of life as only you and I and the other managers they work for can give them, what a mighty force for the preservation of American freedom those millions could be.

Many of those millions of good, fundamentally loyal American workers are being confused and misled by the welter of "pie-in-the-sky," "manna from the Potomac" and "cradle-to-the-grave" security bunk of starry-eyed "do-gooders" or American brand collectivists.

They are being bamboozled by leftist sleight-of-hand performers who are trying to substitute a "more pay for

(*Continued on page* 224)

Practical Phases of Employee Morale

By Kinsey M. Robinson

President, The Washington Water Power Company

An address before the Seventeenth Annual Convention of the EEI, Atlantic City, N. J., June 2, 1949

I AM very appreciative of the compliment your program chairman paid to employees of The Washington Water Power Company when he asked me to appear before you today to relate our experiences in the Pacific Northwest to win friends. This is a year when all of us need friends. The cooperation of agriculture, labor and educators along with other groups is greatly desired for mutual benefit.

There is not a writer in America, not a statesman, not a philosopher with sane understanding of our economy, but who experiences great concern as to what is in store for us tomorrow. Either we will continue adding wealth to the nation, and an ever higher standard of living for the individual, or we will revert to a great shrinkage in human motivation and material goods. We stand at that crossroads today. If the iron hand of government is permitted to close completely over us, our era of happiness, as Hitler once predicted, is over.

Creating Favorable Public Attitude

The several references I must necessarily make in this discussion regarding my own company are not done boastfully. I am sure that many of you could relate experiences far more spectacular than I shall tell about. From one end of the nation to the other, industry leaders are beginning to demonstrate their wisdom and resourcefulness in creating favorable public attitude. That is the purpose of my brief discussion.

I should like to discuss these questions: How can we stimulate our industry's many thousands of employees to a higher level of morale which will result not only in an impressive effort to preserve private enterprise but in a crusade? How can we make employees conscious of the world-wide trend that threatens them? Is it possible to make employees sufficiently informed that they can speak of their jobs in terms of freedom?

Out in the Northwest, employees of The Washington Water Power have in recent years contributed a great deal

MR. ROBINSON

along this line to public understanding. The percentage of population that stood up on the company's side and said that private industry is good to do business with, has steadily increased. The same broad surveys that probed into the public attitude, the surveys that showed us why the consumer was unhappy and what activities we should work at to make him pleased, also told us where we stood.

Employee Effort Rewarded

On thirteen important counts that have to do with business practices, The Washington Water Power, compared with other leading industries in the area, stands today in first position. Courtesy — promptness — cooperativeness — community building — reasonable policies — in such items as these the company stands high. That appreciation of the company has come through employee effort. What's more important, however, a professional survey in the area shows that 75 per cent of all voters touching our power lines favor the company as against public operation of the electric industry. Only 14 per cent favor public power.

Those of you who have seen the most recent national survey results must agree that employees in the Northwest have indeed taken Paul Bunyan steps to raise our small candlelight to a degree of local brilliance that is enviable.

Each of you could recite a long list of obstacles in the past several years that have swept in upon us like an avalanche to threaten the wellbeing of private industry. The story of Pandora's box, with its tens of thousands of stinging, hateful insects, expresses it only mildly. Employees generally have not been aware of the many regulations and laws that have affected us. We have not taken time to tell them.

In the Northwest, it seems that an all-out effort has been made to liquidate private enterprise in the electric industry. Out there, we cannot close our eyes to what is happening. Sometimes I groan inwardly when I tell it, but the Northwest has acquired a reputation for being not only rugged, but quite radical. Into the Northwest—this little Soviet of America — has drifted more than our share of the nation's do-gooders and fellow travelers, all of whom are working twenty-four hours a day.

Federal Opposition

We have been given the third degree by Federal bureaus; powerful combines have perfected a shocking underground organization with but one goal—government ownership—the death of private industry. National groups, with not the slightest interest in northwest development, but with a keen anticipation of control, have exerted pressures seldom seen by a military task force. We ask ourselves out there in the Northwest, how does it happen that we have survived at all? Still, as I say, in spite of all this, our employees, plus acceptable company policies, have won the consumer to our side.

But really now, should it surprise us that employees in any organization can effectively win friends? Should any executive express surprise or doubt that employees are full of latent enthusiasm, not to mention their many good ideas? In the first place, consider how very intimate are the contacts of the men and women, old and young, about us.

Some of our employees have spent their entire lives in the communities they serve. When sickness befalls a neighbor, it is our employee who sits by the bedside. Gifts between families are exchanged at graduation and Christmas time.

Bonds of Friendliness

Husbands hunt, play golf, and build boats together; the wives chatter over the telephone and argue at bridge only as women can. The children, too, create an intimate bond of friendliness which —when it comes to a showdown in the small circle of friends—will outweigh harmful propaganda. The roots of our employees touch upon the deepest of human emotions. Their conversations deal with love and hate, vanities and ambition, good and evil, right and wrong. These are the very foundation stones of our civilization. Consequently, I am not surprised when a spark to their enthusiasm touches off a great spectacle. Our employees can accomplish what they set out to accomplish. They are on the inside track. They have tickets to the front row.

Secondly, in this serious problem of winning friends, the effectiveness of our employees is found in that simple word coverage. Employees filter into nearly all levels of society, and they possess a remarkable range of interests and abilities. Some are almost in the genius class; others have had little schooling. Some employees hob-nob with the professionals. Always you find a few on good footing with government workers, or the Major General. Still others, who make no pretense to special achievement, but who work at many useful tasks, have close friendships with some of the 15 million union workers throughout the nation; what's more, they rub elbows with many of the 46 million non-union workers. These people on our payrolls are in a position to do industry immeasurable good, providing—I say providing—that we, who have the responsibility for leadership, will take time out to lead them. It is all a question of interest; of understanding. From our standpoint, it is entirely a problem of morale.

Charlie and Mr. Hate

Perhaps we can cite an experience that may be called typical. Suppose, for example, one of your linemen, or an accountant, drops in to visit a neighbor. He makes several such calls each week and we assume that he must have at least ten such neighbors. Surely the forests our grandparents had to cope with have given way to that many houses in an electric service community. Suppose, too, that the neighbor in question begins to quote from a radio program broadcast the night before.

This is the way it usually goes. Comments the neighbor, and I quote: "Well, Charlie, our politician, Mr. Hate sort of gave your electric company a going over last night. Yeah, heard him on the radio. You know, the way he's got things sized up, the government stands for progress and good living for all. Yep, politician Hate says he can make this a wonderful world if we just give him a chance. Now Mr. Hate thinks your electric company is holding up progress. He says all you big companies care about is profits."

Now this imaginary quote is not as imaginary as you think. It is the basis of much of our difficulty. It is sad but true that most of our thorns in the electric industry grow on the one single bush—people want something for nothing. The age-old appeal to greed, envy, laziness and self-pity—these items are all included in the campaign of propaganda, and unfortunately we often fail to identify propaganda as such. The utility employee sitting there listening to such comments will do one of three things, depending entirely upon how he feels. Either he will look wise and say nothing; or he will agree with his neighbor, adding experiences of his own; or if he likes his job and understands it, he will fairly jump at the chance to explain.

What Employees Can Do

An employee on good terms with his neighbor, leaning over the rocking-chair where grandmother sits, or grinning at one of the youngsters, or lending a hand to take down the storm windows—that employee can whitewash the politician's entire philosophy with half a dozen words. I repeat, the employee CAN if he wants to.

But employees must feel right before they act. The desire must precede the deed. Searching parties stumble many miles through the cold only because they WANT to. Soldiers endure privation, risk life for a friend because they WANT to. I don't know how your workers stand regarding attitude. You know better than I.

However, I do say this: If you haven't checked employee opinion and employee morale in the past dozen years, and if you think you can endure the painful shock of truth, then I suggest that you send your employees a questionnaire, asking them what they honestly think. And please, I beg of you, don't hold the patient's nose. Ask about your policies—are they good or bad? Ask about your operations. Invite employees to comment on how they like their jobs. Are they secure? Do they feel important? Is it possible for them to develop? How do they like their supervisors?

Employee Comments on Morale

And here I may be treading on delicate ground, but I would like to quote from a few of our employee questionnaires in the Northwest. Personally, I am confident that supervisors in the electric industry are better than average as a result of training. Still, now and then we all forget. Now and then somebody is promoted to a place where job enthusiasm is neglected. It's hard for some of us to learn that labor today must be led and not driven. Again, I quote, to give typical employee comments.

"The boss rides up in the same elevator every morning, but never opens his mouth—big shot!"

"The higher they climb, the more stuck-up they get."

"We do the work, he takes the credit. I'll never help that guy again."

"He bawled me out right in front of everyone. I'll make him pay for it, if it takes twenty years."

"You never learn one thing about the company in this department until you read it in the paper. We aren't important enough to know what's going on. We only work here."

"If I weren't a good-natured Irishman, I'd punch him right in the nose, yelling at me that way."—Which means that we should all hire more Irishmen —at least hire good-natured people.

Such employee comments you may find in your own organizations. It is easy to see that if only ten employees in a thousand feel that way about their jobs good morale is out of the question. If one supervisor humiliates, ignores, or restricts; if only one department head plays favorites, steals credit from his workers, or fails to show appreciation for a job well done, employees will not go all out—rain or shine—to see that the "show goes on."

I need only remind you that since 1922 we have had in the United States 31,000 strikes, totaling 187,000 years of lost production. This hints grievously at the relationship between some management and labor, though I am gratified to say that labor relations in the electric industry have been comparatively good.

Employees and their Troubles

But the tragedy of it all, the atom that pushes on and on, is the one explosive fact: Our employees won't keep still about their troubles. They have to express themselves. We may talk in print until we're exhausted; our lawyers and publicity men can make the most logical statements on earth; but unless our employees are enthusiastic about what we do, they can neutralize our motives by the single comment—"Bologny."

Out in the Northwest, when we learned that some employees were unhappy, we set out without delay to correct the difficulty. Our supervisors were called in to a series of training conferences, where we talked rather plainly, too. Supervisors were reminded that if industry functioned in the latest democratic fashion, if employees could vote on their immediate supervisors, many of the foremen group would undoubtedly be looking for new jobs. It was urgent that we all learn what was wrong. Then, without criticism or censure we attempted to make that wrong exist no more.

In an effort to bring management closer to the employees, we took a second step. This time each division, or local area was invited to elect one employee each month to come in to the general office and sit down with management. Linemen and plant operators who had never visited in the general office before, sat around the table with top management. They asked questions. They related anything that bothered them. Heroes, that's what they became. Back they returned to the home office. They were now in the confidence of management. They were on the inside.

Still another type of meeting brought all rank and file employees together on a divisional basis once each month. These were general information meetings. The tough guy in his own working crew sat next to a pretty cashier. Men found it difficult to be rebellious when sandwiched between fellow employees who had been loyal for forty years. Employees in monthly information meetings were brought up to date with current events; policies which the rest of us took for granted were carefully explained.

Now and then an appropriate verse was recited to emphasize loyalty, self-reliance, and industry. We found it effective to flash questions on the screen pertaining to company matters, and then draw the name of an employee from the hat to answer that question. It was not unusual to see weather-tanned linemen at the noon hour quizzing the other fellow about the next conference coming up. What is the company rate? What is our extension policy? How do we stand on appliance repair? Such questions up and down the halls are a symptom of good morale.

Employee Loyalty

Why is it, I would like to ask, that many supervisors are willing to work overtime hours for their company? Why will a girl cancel a date to get the job done? I am inclined to think that the answer can be largely found in the fact that these willing employees are impressed with the importance of their work—what it means to others—the shadow of an ideal. People think with what's in their heads. We also act with what's in our heads. Consequently, at the Water Power, employees so familiarized themselves with company policies and with the issue of free enterprise that response was second nature with them. The relationship between private enterprise and personal freedom became more than information. It flowered into a deep conviction, a belief.

But someone, somewhere had to make the start. Employees had to be reminded, just as I now wish to remind you, that men have struggled through long, dark ages to achieve that thin ribbon of light called freedom; that in ten thousand years only one in each forty lives has ever known liberty; that through the centuries men who resisted tyranny have made fiery speeches, have fought and have died; that the ideal which means so much to us here, this privilege of existing as free men, can easily slip from our hands unless we are willing to do something about it.

I must say that employees have fairly good understanding. They know the value of voluntary action as well as we do. And when we told them about our past elections—I remember one instance, where only about 15 per cent of the voters at one time supported us at the polls—when we told them about the falsehoods, and false statements heaped upon us, our employees wanted to do something about it. Eighty-six per cent of our personnel volunteered to give active help the first day of our meetings. After that, our major worry was to give these employees a definite assignment, something practical to do.

Competition in Public Relations

All good sales contests make use of the principle of competition. They say that even a horse will run faster if it has something to spur it on. Then why not make use of competition to stimulate our employees to do a better job making friends? One division was accordingly pitted against the other. It was a genuine, old fashioned selling contest. We had no bookkeeping to bother with, no merchandise to stock. We had nothing to do in the contest except make friends.

You will perhaps ask, how do employees go about it when they set out to win customer alliances to the company? When you leave friendship to employees, what is their technique? Time will not permit the avalanche of ideas that come in—genuine employee enthusiasm. However, I will say this: Our workers know more about human relations than we give them credit for. They built community skating ponds, organized boys clubs for the underprivileged, and dared to settle grievances, many of which had existed for twenty years. It may be a case in point to mention how our employees approached the schools. That is a common problem.

Little Red School House

The approach to the little red school house was something like this. Employees first went to the superintendent. And they started to talk. "Let some of us with experience help you people publicize the fine things the school teachers are doing." That was the approach—Do something for the other fellow. Who could get mad at that? It was a much needed service, too. The public didn't know and the schools were hardly prepared to tell.

Soon a dozen window displays were circulated in downtown store windows. Full page feature stories appeared in the newspapers. Radio skits were written. Regular monthly dinner meetings permitted teacher groups to present their

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Transmission and Distribution Committee Meeting

T. J. Brosnan, *Chairman*

ONE hundred sixty members and their guests attended the Transmission and Distribution Committee's forty-ninth meeting on May 2 and 3 at the Edgewater Beach Hotel in Chicago.

Standards and Specifications

Activities of the Standards and Specifications Group, sponsored by W. E. Losie, were summarized by subcommittee chairmen.

R. M. Havourd reported that proposed EEI-NEMA specifications for suspension insulators soon will be ready for ballot. Continued progress is being made on specifications for spool and strain insulators and work on pin and post insulators has been started.

F. A. Ashbaugh announced that the revised specifications for Douglas Fir crossarms has been completed and soon will be released for publication. Progress on the specification for Southern Pine crossarms is continuing and a new specification for heavy-duty crossarms is underway.

E. K. Karcher reported that revision of TD-1 "Specifications for Bolts and Nuts" is about complete. Balloting on TD-21 "Specifications for Steel Clevises for Guy Strain Insulators" has been completed but a few further refinements will be made before release for publication. Specifications for guy hooks and plates, guy thimbles, staples and 1⅜-in. steel insulator pins are in process and work on specifications for pole-top pins, guy clamps and bolts, expansion shields and a revision of TD-3, "Specifications for Lag Screws" has been started.

Street Lighting Specifications

R. J. Palmer stated that EEI-NEMA street lighting equipment specifications for filament lamps, photometric tests for luminaires, voltage classification and pendant luminaire mountings are nearing completion and that good progress also is being made on those for poles and series sockets and receptacles.

W. L. Vest, Jr., reported that ballots received to date indicate general acceptance of the tentative time-current characteristics for both the fast and slow series of fuses proposed as EEI-NEMA standards.

Coordination of engineering, operating and safety departments was the theme of the session on safe design construction and operation, sponsored by C. E. Bathe.

The importance of clean cut organization where each man knows his job and responsibility and has authority in keeping with this responsibility was emphasized by F. W. Bagnall. He described how safety has been integrated into the line organization of the overhead lines department of The Detroit Edison Company with a resultant steady decrease in accident frequency in recent years. Particular attention is given to the continued training of all supervisory levels. Operations have been analyzed and broken down into over 400 job units in which safe practices and warnings are incorporated as a part of standardized procedures.

Coordination of Safety

Coordination of safety in the Virginia Electric and Power Company was outlined by F. W. Smith. The widespread service area covering 30,000 square miles in widely varying terrain presents peculiar problems. The eleven operating districts coordinate standardization of materials, construction and safe practices through a system engineering committee and a system safety committee with full coordination between the two.

E. W. Oesterreich cautioned against indiscriminate spending for accident prevention. For example, analysis of accidents in his company several years ago showed that most occurred on simple jobs on simple structures. This indicated the need for additional training rather than further general increases in climbing and working space which could not be expected to reduce accidents substantially. Each serious accident is analyzed to determine whether design or procedures can be improved. However, no changes in construction standards are made without full approval of electrical design, operating and safety departments.

General Engineering

A feature of the General Engineering Group, sponsored by J. E. McCormack, was a paper by L. J. Audlin, M. H. Pratt and A. J. McConnell, describing a means of restoring service to distribution feeders following outages of sufficient duration to permit loss of diversity among automatically controlled motor loads. The scheme utilizes a relay having a much more inverse characteristic than those normally used for phase- overcurrent protection which more nearly approaches the pickup current characteristic of the feeder. This extremely inverse characteristic closely approximates a fuse characteristic and thus also permits better coordination with distribution fuses on low fault currents and with primary fuses on high fault currents. This scheme was tested successfully during a prearranged 15-minute interruption of a residential feeder of the Central New York Power Corporation during a peak load period last winter.

New Carrier System For Clock Control

J. L. Wagner of the International Business Machine Corporation described a new carrier system for control of clocks over building wiring. A 3500-cycle carrier, controlled by a master clock, is introduced on the customer's side of the distribution transformer bank for hourly correction of other clocks in the building. Three other carrier frequencies are available for control of other devices such as buzzers. Several members expressed concern over possible interference between this system and other carrier systems such as those used for control of water heaters or street lights.

W. C. Phillips outlined the new FCC rules and frequency allocations for industrial radio service to become effective on July 1, 1949. He emphasized that actual use of the new channels must await completion of a national plan for coordination of frequency assignments within the Power Utility Service which is being prepared by the National Committee for Utility Radio.

Overhead Group

The Overhead Group sponsored by L. G. Smith, covered various subjects.

F. W. Bagnall described a program for reducing climber cutouts which resulted in a decrease from as many as ten lost time accidents per year to none in 1948. An important factor in the improvement is believed to be the use of a climber with an adjustable leg iron and removable gaff incorporating a flatter gaff angle, than that commonly used.

H. E. Stites reported only two interruptions after one year's operation of the 110 mile, 138-kv, H-frame trans-

mission line described at an earlier meeting. Both occurred when trees blew into the line. The clamped spar arm construction served a useful function in one case where the conductor broke since it permitted the arms on adjacent structures to rotate, tending to equalize stresses and limit damage to only the conductor.

Pre-Assembled Aerial Cable

W. P. Holben presented a progress report on proposed specifications for pre-assembled aerial cable being formulated by an AEIC-EEI-IPCEA joint working group. Items to be covered include 5- and 15-kv insulation, neoprene jacket, shielding for voltages in excess of 5-kv, messenger strength and conductivity, metallic binder, preferred conductor sizes and ratings for single and three-phase cables.

A panel discussion on current ratings for overhead transmission conductors was conducted by L. G. Smith. As a basis for discussion L. F. Hickernell presented a suggested standard method for calculating normal and emergency ratings. Comments revealed a general lack of agreement on a standard ambient temperature, permissible loss in tensile strength due to annealing and the economic life of the conductor.

A discussion of cost saving methods included descriptions of low cost street lighting by J. D. Waddell; construction unit templates for quick compilation of bills of material by H. L. Livingood; and pole guards, concrete saws and truck-mounted platforms for tree trimming by L. G. Smith.

Underground Group

The Underground Group, sponsored by J. A. Pulsford featured two panel discussions. The first, concerning guiding principles of investment in underground plant, evoked considerable difference of opinion regarding the relative costs of overhead and underground construction. The discussion related primarily to establishing distribution facilities in new residential developments, and experiences in several locations were described. The second panel discussion concerned economical operation of underground plant and featured a paper by W. D. Sanderson and W. A. Sinclair describing cable and transformer loading practices of The Detroit Edison Company. Improved materials, testing equipment and knowledge of local thermal conditions and simplified fault location and repair have resulted in a trend toward higher loading efficiencies in the belief that "intelligent abuse" of underground equipment is economical. J. A. Pulsford concurred and indicated that emergency transformer loading can be increased as much as 25 per cent above the 125 per cent of rating generally assumed on the basis of two emergencies per year. His company finds loading for a 39-year life to be most economical. J. W. Anderson reported that his company seldom removes underground transformers except on failure. Tanks are painted in place every 2 years. J. A. Pulsford and C. T. Hatcher considered this impractical, preferring to remove transformers for more thorough repainting at longer intervals.

C. T. Hatcher presented a paper by F. E. Kulman describing initial investigation of microbiological factors in underground cable and pipe corrosion. Soil samples reveal five different types of bacteria to be present. Tests are continuing to determine relative activity of these bacteria on bare iron and to determine the resistance of selected pipe and cable coatings to biological deterioration.

M. W. Ghen reported that comments on the first draft of EEI-NEMA standards for conventional submersible transformers have been reviewed and that preparation of the second draft is underway. It is anticipated that a questionnaire initiating work on standards for network transformers will be sent to users in the near future.

Electrical Equipment Committee Meeting

B. Van Ness, Jr., *Chairman*

MORE than 70 members and their guests attended the 48th meeting of the Electrical Equipment Committee, held at the Edgewater Beach Hotel, Chicago, Ill., on May 2 and 3. This meeting was held concurrently with meetings of other engineering division committees, with a total attendance of around 300. The Joint Luncheon on May 3, which was attended by the Electrical Equipment, Transmission and Distribution, and Accident Prevention Committees, was highlighted by an interesting talk given by Dr. J. T. Wilson of the Allis-Chalmers Company, entitled "The Significance of Electrical Activity in Crystals."

Apparatus Troubles

The first day of the Electrical Equipment Committee meeting was devoted entirely to the closed session (attendance at these sessions is limited to members of the committee and invited utility company guests). F. S. Brown, the sponsor for Apparatus Troubles and Oil Fires, presented a summary of the apparatus troubles and oil fires that took place since the report given at the October meeting. This summary indicated that 146 cases of trouble were reported during the period. Of this number 38 were considered of major interest. Transformers over 500 kva accounted for six of the major cases, cable was next with five cases, turbo-generators and oil circuit breakers accounted for four cases each.

Several presentations of system disturbances and specific apparatus troubles were given by the members. The system disturbances reported indicated the need for special training of operators for unusual and emergency operating conditions.

New Equipment Purchases

The portion of the session devoted to new equipment purchases was of a different nature than that usually followed. Six presentations were made. These were devoted to illustrations and explanations of finished installations of equipment of new design or of an unusual nature which previously had been reported to the Committee as being on order.

A report was given of the characteristics of the single-tank, three-phase circuit breaker which is popular in Canada, but has not been generally available in the United States. A comparison of this type of breaker with the three-tank type, as to price, weight, oil content, etc., was given by R. W. Wilbraham.

The open session of the committee consisted of presentation of a relatively few formal papers so that a large part of the period could be devoted to discussion. A paper prepared by J. H. Vivian and L. F. Hunt, entitled "Synchronous Machine Operation on the Southern California Edison Company's System," was presented by L. F. Hunt.

A large amount of the information contained therein previously had not been generally available and the subject matter is of considerable interest to the industry at this time. The paper is divided into two parts, one dealing with overvoltage testing of synchronous machines, and the second dealing with the operating experience with synchronous machines with ungrounded neutrals. The authors state that information they were able to obtain from manufacturers, and from their own studies, indicated that there is no reliable method of determining the actual remaining life of the insulation of a machine winding. It was considered necessary to take some action to minimize the possibility of winding failures when the units were in operation. Accordingly, machine windings that could not reasonably be depended upon to operate without breakdown due to their past history or present condition were given high a-c potential tests. The results of numerous high potential tests made on windings of machines of varying sizes and types including measurements of dissipation factor, capacity to ground, and megger readings, were summarized. Oscillograph records made under conditions where it was thought arcing might produce oscillations are included. From the result of these measurements, and the valuable data that was obtained, it was concluded that the a-c high potential tests furnish the best available method, when combined with careful inspection, of minimizing winding failures while the unit is in service. The value of 150 per cent of the rated voltage of the generator, applied for one minute, was indicated as being a safe and satisfactory test voltage.

Use of Ungrounded Neutrals

Until 1933, most of the Southern California Edison Company's generators were solidly grounded. Since that time the grounded neutrals have been gradually eliminated and in their place ground detection devices have been installed. The method now used employs one potential transformer connected between generator neutral and ground. The generator stations employing the ground detector are all of the type that do not supply feeders at generator voltage. The experience of the company with this type of grounding has been very satisfactory and numerous cases of trouble external to the generator have been corrected without causing a disturbance on the system. Oscillograph tests were made with an arcing ground on a generator with the neutral successively ungrounded, grounded through a potential transformer with an open secondary, and grounded through a distribution transformer with a resistor connected across the secondary. The oscillograph records indicated that excessive overvoltages did not obtain with the potential transformer connected with the secondary open. Based on their operating experience, the authors state that they are convinced that neutrals of synchronous machines utilized as they are on the Southern California Edison System should be of the ungrounded type with ground detectors. Interesting and active discussion of this paper followed.

Nickel-Cadmium Battery

The Nickel-Cadmium type battery was described by Carl Berg, of the Nickel-Cadmium Battery Company. The construction and chemical composition of the battery, and its difference from the Edison and the lead acid type of battery were discussed. Mr. Berg stated that for applications where high-current duty is required, the nickel-cadmium (Nicad) battery is specially adaptable because of its low internal resistance. The battery has an indefinite life under conditions where it is not subjected to frequent cycling. The battery has been in use in Europe for many years and 30 to 40 years life is common. The Nicad battery is usually larger than the lead acid type in the lower capacity ratings. Above about 200 ampere-hours capacity the Nicad battery tends to be smaller than the lead acid type. One outstanding characteristic of the Nicad battery, according to Mr. Berg, is the low maintenance required. Generally, the addition of water is not necessary, and the electrolyte does not need to be changed. The original cost of the battery is somewhat higher than a comparable lead acid type.

Reactance Relay Application

A report by G. B. Dodds and W. E. Marter on the development of a reactance relay application to discriminate between load transfer currents and fault currents on a 2300-v station service generator bus was presented by W. E. Marter. The transfer of station auxiliaries from one supply source to another is accomplished on a "dead" basis. The time delay between the transfer is dependent on voltage decay. When the transfer is made, a large motor inrush current may result. This current may approach fault current in magnitude, thus complicating the application of relays to detect faults. Another complicating factor is that the fault current characteristics when supplied from the auxiliary power supply transformer is different from that obtaining when it is fed from the station service generator. To determine a satisfactory type of relay to protect the service station bus, calculations of fault currents under each condition of station feed were made and a number of load transfer tests were made to obtain values of inrush currents and their characteristics. Based on this information, relay characteristics were determined which would protect the station service bus under all conditions that may exist. A relay was selected for the application which consists of three elements. These consist of a unit which detects the fault, a unit which measures the reactance of the circuit, and a timing element. Contacts of all three elements must be closed simultaneously to cause tripping.

Foot Rules for System Planning

"Foot Rules for System Planning" was the subject of a paper by R. G. Hooke of the Public Service Electric and Gas Company. Experience over a period of years, in attempting to work out system design so as to avoid the maximum number of kva hours interrupted, enabled the setting up of a largely empirical set of rules for system planning, in recent years. These rules have provided a most useful guide in the planning for new facilities and modification in existing plant. The fundamental empirical assumption which forms the basis for all of the planning is that preparation must always be made for the forced outage of any single piece of equipment or any line. In addition to this assumption, it was necessary to define the unit of load that could be dropped, and the conditions under which such an outage could be tolerated. The standard worked out over a period of years for this requirement is: (a) if a feeder serves only two or three customers, one-half of the load dropped due to an outage must be restored within three hours, and all of the load must be able to be restored within approximately twelve hours; and (b) if a feeder serves

numerous customers, it must be possible to restore essentially all load within approximately three hours. These three principles are applied in the planning all the way from the distribution feeders to the distribution substations, to the subtransmission circuits and facilities, to the bulk power transfer portions of the system, and finally to the generating stations. Planning includes overlapping outages of many types of equipment and circuits. Full advantage is taken of overload capabilities of equipment in the planning.

Storage Battery Group

W. C. Bowen gave a report of the meeting of the Storage Battery Group, held in Philadelphia on March 21 and 22. The meeting was well attended and interesting discussions of testing practices, charging methods, equalizing charges, method of selection of batteries, and replacement practices, were included. Information from circuit breaker manufacturers indicated that the control voltage ranges for solenoids of 90 to 115 v and 105 to 130 v will probably not be met with a single tapped solenoid. Separate coils will probably be required. The group believes that a voltage range of 100 to 120 v will meet the vast majority of requirements.

The charging method most generally used is of the floating type but the equipment used differs widely. Most users replace batteries when capacity drops to 80 per cent or when visual inspection indicates poor condition.

J. H. Foote informed the members that the Joint EEI-AEIC Committee on Branch Circuit Protection had completed its report. He emphasized that this report represents the first engineering study of branch circuit protection, and is expected to be of particular value to the groups concerned with the National Electrical Code. However, the report is so comprehensive it will be of value to others and he urged that the members become acquainted with the report, when copies are available for distribution.

Foreign Practice Information

A. V. DeBeech gave a progress report of activities of the Foreign Practice Division. Information of interest concerning utility practices in other countries was included.

Hydro-Electric Power Commission of Ontario plans for conversion of the 25-cycle system to 60 cycle, contemplate a gross cost of $191,000,000. All equipment of all types of customers will be converted without charge. In discussing the nationalization of power in Great Britain, Mr. DeBeech stated that all but 150 persons in the entire electric authority are subjected to collective negotiations concerning wages and working conditions. Procurement of suitable sites for power plants and substations is no easier under nationalization than under private ownership.

Accident Prevention Committee Meeting

E. J. Kreh, *Chairman*

THE forty-first meeting of the Accident Prevention Committee was held on May 3 and 4 at the Edgewater Beach Hotel in Chicago, Ill., with 45 members and guests in attendance.

The meeting opened with an address by F. H. Finkelnberg, vice president and general manager of the Mississippi Valley Public Service Company and president of the North Central Electric Association. He emphasized that top management must take an active part in accident prevention to achieve a good record and stressed the importance of the supervisor as the key man in any successful program. It is the supervisors' job to make men safety conscious, and his own enthusiasm must be intensive enough to be contagious.

W. F. Brown presented final accident experience of the industry for 1948 which showed some improvement compared with 1947. A summary of the data for both years follows:

	1948	*1947*
Manhours	554,694,429	503,856,664
Fatalities	141	156
Frequency Rate	14.80	15.41
Severity Rate	2.11	2.39

A paper on accident prevention in generating stations by J. A. Brooks and G. E. Quinn was presented by Mr. Brooks. Unique safety problems in these plants arise from the fact that a great variety of activities are carried on around the clock and often in very confined spaces. Analyses show that most accidents occur in coal and ash handling and in operating, maintaining and cleaning boilers. Unfortunately, this category of hazardous work includes some of the very jobs which must be assigned to the newer and less skilled men. Careful design, good housekeeping, safety clothing and appliances, training and a rigid work permit system were stressed as important bases for reducing steam generating plant accidents to a minimum.

Noting that three-fourths of all electric shock cases occur in the summertime, A. L. Dowden outlined a program of the Liberty Mutual Insurance Company designed to combat summertime hazards. This program calls for intensified safety efforts during this period including group meetings where films on electric fatalities are shown, mailings of posters, pamphlets and other printed materials and a visit to each organized line crew on the job during the season.

W. R. Smith reviewed latest developments in resuscitation and resuscitation devices.

I. R. Dohr reported that good progress is being made on a revised ASA specification for rubber gloves.

A report from P. L. G. Hasskarl indicated that the text of the proposed field manual on the care and use of hot line tools is ready for Committee review.

The thirteenth in the series of Exchange Bulletins, edited by G. J. Ruoff, included descriptions of unusual accidents caused by failure to properly secure temporary lead, failure to use tongs while holding bar, failure of tangent steel tower structure, climbing snow-laden tree, snapping safety strap to plier handle instead of D-ring, standing on transformer, carbon tetrachloride, turning crossarm up into a live line, failure to use barrier for adjacent live parts, entering post hole to clean out rock and several failures to wear rubber gloves in the primary area.

H. F. Webb presented a report on practices in the unloading, storage and transportation of poles.

A. H. Doud reported that about 7000 copies of each of the first three of the Committee's new series of industry safety posters have been sold to date. Additional posters in this series are planned.

C. E. Bathe, Transmission and Distribution Committee sponsor for safe design, construction and operation, de-

scribed recent discussions of safety problems by that Committee.

New Yardstick for Measuring Safety Performance

D. C. Stewart presented a paper entitled "Do We Need New Yardsticks for Measuring Safety Performance?" Referring to the widespread use of the frequency rate (Accidents per million manhours) as the best single measure of performance in contests or intercompany comparisons, he pointed out that the severity average (days lost per injury) is of equal importance, although this measure is seldom used. The product of these two measures, frequency and severity average, with adjustment of the decimal point, is equal to the severity rate (days lost per thousand manhours worked).

This makes the severity rate the theoretically correct single measure of both the frequency rate of injuries and their severity. He pointed out that it has not generally been used as such because its name, "severity rate," has implied that it is a measure of severity alone, and because the heavy time charges for fatalities and permanent disabilities have made the "severity rate" an erratic measure for year-to-year comparisons within companies or for intercompany comparisons.

Modified Severity Rate Proposed

He proposed a modified "severity rate" in which time charges for temporary total disabilities are carried at their full value, but arbitrary time charges for fatalities and permanent disabilities are carried at one-twentieth of their schedule values. The proposal is to receive further study by the Committee.

Tests for Employee Selection

C. B. Boulet, Chairman of the Industrial Relations Committee, described the Committee's program for developing a series of tests which will provide reliable employee selection tools for the utility industry.

Round table discussion, conducted by J. G. Dickinson, covered a variety of subjects. In connection with the collection of gas in conduits and manholes, W. F. Brown reported that butane and propane do not settle out after being mixed with regular manufactured gas. Several members reported difficulties and injuries resulting from the use of power-actuated tools. C. J. Smith described a new plastic come-along obtained for trial. Several members indicated extensive use of scale models for design, demonstration of work practices and analyzing accident causes. A. S. Hancock reported that a survey of one area showed several television antennas installed perilously close to power lines and suggested the need for local education of television antenna installers to this problem. Several members reported that aluminum, truck-mounted derricks for pole setting have been unsatisfactory for the heavier jobs. Discussion indicated that the use of aluminum foil for burns needs further evaluation. W. R. Smith showed data indicating the range of electric shock current which will produce ventricular fibrillation when introduced during the sensitive portion of the heart cycle.

Practical Phases of Employee Morale

(*Continued from page* 214)

problems to the business men. Month after month this went on. A speakers group took the subject of education to business and civic groups. A colored movie was proposed showing typical school accomplishment. School questions were included in local surveys, and results turned over to scores of principals.

The secret of friendship had been found. It was the Golden Rule put to work again. Do unto others — you know the rest. Did teachers appreciate this assistance? Indeed they did. Soon the teachers were calling the company's telephone number, requesting that an employee visit the school to explain meter-reading and how to read the light bill.

The teachers asked the company to show its motion pictures; to give demonstrations; eleven requests came in one day—twenty to thirty per month. In a 60-day period 150 schools had asked for literature that would explain the company's side of public power. Library kits were prepared to fill these requests and another hundred kits are now being prepared.

Is It Worth the Time and Cost?

But my time is nearly up. First, however, I should like to answer this one question: Is employee effort worth the time and the cost? Well, all I can say is that our companies aren't worth much to us if we lose them. Henry Ford spent one and one-half millions to announce a new model car. The federal government spends 74 millions annually to tell its story. Transferred to a totalitarian state tomorrow, we would probably spend many miserable hours each month being indoctrinated — which seems difficult for some of us now.

I am of the opinion that employee participation is worth the effort and the cost many-fold. In the twelve-month period, our employees gave a total of over 1600 talks, reaching more than 85,000 people; employees encouraged 1200 outside organizations to use company windows for display purposes; another 400 organizations utilized our lobbies and floor space; over 20,000 deliberate acts of kindness were performed. Community building projects were numbered at nearly 4,000; some 10,000 newcomers were called upon personally; nearly five thousand grievances were cleared up. And you would be surprised at the quantity of literature that was mailed.

Employee Support

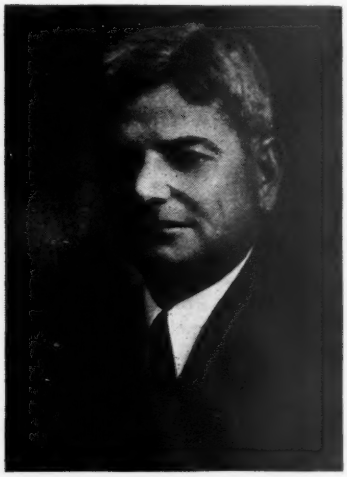
Strangely enough, employee support is waiting at our very elbows. The power of employee friendships can be turned to immediate use almost for the asking. But to gain employee support —job enthusiasm, or whatever you choose to call it—we must first be interested in the problems of our employees. We must take them into our confidence; discuss the future with them; give them a voice in planning; set a goal that is clear-cut and practical; and I promise you they will do something about it.

The time to enlist employee support is now. It seems quite possible to me—almost a reality, that if our employees are presented with facts, and if they have the right attitude, uninformed influence in our organizations will give way to excellent morale. What's more, it is just possible that if each employee somehow can be made responsible for the friendship of—say 30 families over the next few years—our public relations would be greatly strengthened.

It would indeed be wonderful if our employees, under our leadership, could save the heritage that has made this meeting possible.

PERSONALS

L. M. KLAUBER has moved up from president to chairman of the board of San Diego Gas & Electric Co., and A. E. HOLLOWAY, formerly vice president in



MR. KLAUBER

charge of sales, has been elected president. Mr. Klauber is also one of the directors recently elected to the Board of Directors of the EEI.

The change in top management of the utility company came in an organizational meeting following the recent annual stockholders' meeting. HANCE H. CLE-

MR. HOLLOWAY

LAND, who is retiring as chairman of the board, will continue as a director.

The position of vice president in charge of sales, which Mr. Holloway filled, has been taken by H. G. DILLIN.

The new chairman and president of San Diego Gas & Electric both started their careers with the company direct from college and special training courses in electrical engineering. Mr. Klauber started as a salesman in 1911 and progressed to engineer of records, superintendent of the electrical department, assistant general superintendent, general superintendent, vice president and general superintendent, vice president in charge of operations, vice president and general manager and, since 1946, president.

After a year of apprenticeship work with Westinghouse, Mr. Holloway went West and joined the San Diego utility's sales force in 1910. He was made a director of the company in 1911, commercial superintendent in 1921, and vice president in charge of sales in 1932.

Mr. Dillin goes to the vice president's position from commercial manager, a position to which he had been appointed late last year. Mr. Dillin started with the company in 1924 as a draftsman and transferred to appliance sales two years later. In 1932 he was appointed engineer in charge of rates, rules and regulations.

MARSHALL S. LUTHRINGER, production engineer in charge of all power stations for the Central Illinois Public Service Co., Springfield, Ill., has been elected president of the company to succeed the late L. A. MAGRAW. EDWARD F. KELLY, formerly operating vice president, has been elected to the new office of chairman of the board.

During his more than 23 years' association with the Central Illinois utility, Mr. Luthringer has served in capacities ranging from power station laborer to division manager and production engineer in charge of power stations. After occupying several engineering positions in various locations on the company's system, he became assistant to the vice president in 1932 and later that same year was appointed manager of the new business department. In 1934, Mr. Luthringer was named Division J manager with headquarters in Beardstown, the position he held until he was named company production engineer in charge of power stations in 1946.

Mr Kelly became identified with Central Illinois Public Service in 1913, when he entered the commercial department. After service in World War I, he returned to the company as a division manager in 1919. In 1928 he became assistant to the vice president, and four years later was elected vice president.

A graduate of the Massachusetts Institute of Technology, Mr. Kelly had been identified with the New York Edi-

MR. KELLY

son Co., Consolidated predecessor, earlier in his career in the capacity of industrial power salesman.

OTTO SNYDER has been elected chairman of the board of directors of New York Power and Light Corp. and WESLEY J. GILSON was elected to succeed

MR. LUTHRINGER

Mr. Snyder as president of the company.

Mr. Snyder had been president and a director of New York Power and Light Corp since December, 1929 and had been associated with the predecessor companies of the Niagara Hudson Power

System for 32 years. Mr. Gilson had been a vice president of New York Power and Light Corp. since 1933, and has been with the company for 29 years.

Mr. Snyder graduated from Cornell University in 1906 and joined the utility management division of Stone & Webster

MR. SNYDER

Corp. After serving with various utilities, in 1917 he was transferred to the commercial department of Adirondack Electric Power Corp. Following the merger of this company with New York Power and Light Corp., Mr. Snyder was elected vice president and advanced to president when New York Power and

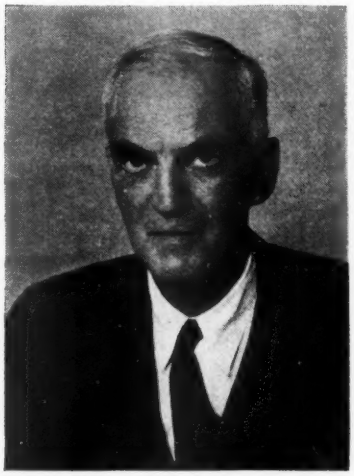
MR. GILSON

Light became a member company of the Niagara Hudson Power System in 1929.

Mr. Gilson was born in Idaho Springs, Colorado and was graduated in electrical engineering from Worcester Technical Institute. He served in the engineering department of Stone & Webster Corp. from 1913 to 1920. He was appointed resident manager of Adirondack Power & Light at Oneida in 1920. In 1927 he went to Albany as general superintendent of the New York Power and Light Corp. He was elected a vice president and general superintendent in 1933, and a director in 1944.

JOHN C. PARKER has retired from his post as a vice president of Consolidated Edison Co. of New York, Inc.

He joined the former Brooklyn Edison Company, a subsidiary of Consolidated Edison, in 1922 as electrical engineer and later became vice president in charge of all Brooklyn Edison engineering. Under Mr. Parker's direction, the Hudson Avenue generating station, largest steam-electric station in the world, was designed and built and the electric distribution system in Brooklyn was altered and rebuilt.



MR. PARKER

From 1932 to 1936, Mr. Parker served as president of Brooklyn Edison. When that company was merged into Consolidated Edison in 1936, he became a vice president in the parent company and was responsible for the departments engaged in research and development. Recently, he has been engaged in consultative duties and special assignments.

Born in Detroit April 15, 1879, he received a degree in mechanical engineering from the University of Michigan in 1901. After an apprenticeship with the General Electric Company he took a post as instructor in the electrical engineering department of Union College, Schenectady, under the late Charles P. Steinmetz.

For nine years he was mechanical and electrical engineer for the Rochester Railway and Light Company. Later he served for seven years as professor of electrical engineering at the University of Michigan.

Active in governmental work during World War II, Mr. Parker served as consultant to the War Production Board, War Manpower Commission and the Foreign Economic Administration. The Secretary of War appointed him a member of the National Technological Advisory Commission. He is a former president of the American Institute of Electrical Engineers. At present he is on the U. S. executive committee of the World Power Conference and is scheduled to address the United Nations Scientific Conference at Lake Success in August on conservation and utilization of natural resources.

For a number of years Mr. Parker has been associated with the Foundation for Economic Education and the National Industrial Conference Board.

Mr. Parker has also served long and faithfully with many of the committees of the Edison Electric Institute and other organizations in the electrical industry.

O. T. FITZWATER, formerly treasurer and assistant secretary of the Indianapolis Power and Light Co., has been elected a vice president of that utility. He will now serve as vice president and treasurer.

Mr. Fitzwater has virtually "grown up" in the Company. Starting when he was 11 as a water boy for a line crew during school vacations, he took a full-time job as a plant timekeeper when he was 17 and advanced in accounting work, with night studies, until he became assistant treasurer and assistant secretary in 1940. In 1945 he was elected treasurer.

PHILIP TORCHIO, JR., who has been assistant to the operating vice president of the American Gas & Electric Service Corp., New York, for the past year, has been appointed assistant to the vice president and general manager of the Ohio Power Co. Mr. Torchio was formerly associated with Consolidated Edison Co of New York, Inc., serving with them in various capacities in the generating, distribution, sales, purchasing, and engineering departments over a period of 16 years.

FONS J. HUGHES has been appointed by Pacific Power & Light Co. to head its system-wide safety program. Mr. Hughes was formerly assistant supervisor of industrial safety with the Washington state department of labor and industries.

A. B. MARTIN has been named chief engineer of the Montana Power Co., Butte, succeeding H. H. COCHRANE, recently retired after fifty years' service. A. C. PRATT, formerly assistant chief engineer, retired at the same time as Mr. Cochrane. Both have been retained by the company as full-time consultants.

The retirement of Vice President and General Superintendent M. E. BUCK has also been announced. He will be succeeded by CARL JORDAN, now assistant general superintendent.

L. S. STADLER, engineer, in the gas department, has assumed Mr. Martin's former duties as superintendent of that department. E. A. HAMILTON is now superintendent of generation; C. H. KIRK, superintendent of transmission and distribution; and H. K. DICKINSON, electrical engineer.

J. R. LESTER, manager of the industrial development division of the Alabama Power Co., Birmingham, since 1943, has been made manager of the company's rural and towns division. Mr. Lester assumed the duties formerly performed by E. C. EASTER, recently made sales manager. H. NEELY HENRY, who has been assistant manager of the industrial development division, becomes its manager. Widely known in Alabama and elsewhere for their efforts in the industrial development field, both Mr. Lester and Mr. Henry are long-time employees of Alabama Power. Starting in 1919, Mr. Lester has served as district manager at Talladega, division sales supervisor, and merchandise sales director. Mr. Henry has been associated with the company's industrial development work since 1937, and became assistant manager of the department in 1948.

A. S. CORSON has been appointed comptroller of the Philadelphia Electric Co. His entire business career has been with The United Gas Improvement Company and affiliated companies. He was a vice president of that company at the time of his recent appointment.

He is active in many important accounting organizations, and is also identified with Controllers Institute, the Edison Electric Institute, the American Gas Association, the Pennsylvania Gas Association, and the Pennsylvania Electric Association.

WILLIAM C. LOUNSBURY, director of personnel and safety of the Minnesota Power & Light Co., Duluth, has retired. A veteran of 43 years in the electric-utility business, Mr. Lounsbury first began working for the Superior Water, Light & Power Co. now an MP&L subsidiary, in 1906. Since then he has divided his time between that company and MP&L, holding important positions with both.

LOUIS J. REHBERG, superintendent of Detroit Edison Co.'s Marysville plant, has retired after 40 years of service with the company. He will be succeeded by GEORGE F. CAMPAU, formerly assistant superintendent.

Mr. Rehberg was first employed by the Eastern Michigan Edison Co., a subsidiary of The Detroit Edison Co., in 1907, during the building of the Superior Hydro Electric Plant near Ypsilanti. He was assistant engineer on the rebuilding of the Geddes Hydro Plant near Ann Arbor. Since 1929, when he came to the Marysville Plant, he has been, successively, technical engineer, assistant superintendent and, in 1946, he was made superintendent. Mr. Rehberg was born in Detroit in 1884 and is a graduate of the Engineering School of the University of Michigan.

Mr. Campau, the new plant superintendent, started at Marysville in June, 1932, as technical engineer, moving on successfully to assistant superintendent in August, 1946. He came to the company in 1926, after his graduation from the University of Michigan.

ARTHUR R. NELSON has been appointed general superintendent of electric distribution, Public Service Electric and Gas Co., succeeding JOHN S. WARE.

Mr. Nelson started with Public Service in 1920 as a cadet engineer. In 1924, he was made assistant division superintendent of the Camden District and six years later, assistant division superintendent, Southern Division, electric distribution department. He was appointed assistant transmission construction engineer in 1931, assistant division superintendent of Essex Division in 1934 and superintendent of that division six years later. In 1942, Mr. Nelson was promoted to assistant general superintendent of electric distribution.

Kansas City Power & Light Company has announced creation of a new engineering department that will be capable of handling the largest quantity of engineering work in the history of the Company.

C. MYRON LYTLE, as manager of engineering, will head the new department which will handle all engineering dealing with design, standards and construction. Mr. Lytle was formerly the Company's chief engineer of transmission and distribution. In his new position he will report directly to Harry B. Munsell, Kansas City Power & Light president.

J. CLARK DAVIS, has been named to move from assistant to Mr. Lytle, to the position of ranking assistant manager of engineering, in charge of electrical transmission and distribution. FRED G. FRESHMAN, former head of the company drafting division, is also designated assistant manager of engineering, in charge of mechanical and structural engineering, and will continue to supervise activities of the firm's drafting.

Two additional assistant managers of engineering are yet to be named, according to Mr. Munsell. One will handle production engineering and the other will be in charge of the Company's engineering activities in outlying districts and the Power & Light property at Mason City, Iowa.

Reorganization of the engineering and operations department of the Florida Power & Light Co., Miami, has recently been completed.

Three new offices have been added to the staff of J. H. White, vice president in charge of operations. They and their occupants include: Transmission engineer, NEIL METZ; distribution engineer, OLLIE T. AYERS; and system engineer, R. A. GOODBURN.

The offices of division distribution superintendent have been discontinued and the office of division superintendent added. The following are the division superintendents: J. P. HANLEY, eastern; R. S. DAVIS, western; H. G. WILLIAMS, northern; MAX V. BOSE, southern; and J. T. MOORE, commercial manager and superintendent for the northwestern division.

Division engineers include: L. P. BROWNING, eastern; W. A. HAINES, western; J. G. SPENCER, JR., northern (Daytona Beach); J. L. MUNROE,

northern (northwest area); and D. F. McConnell, southern.

Charles F. Monson, assistant to the vice president of the Puget Sound Power & Light Co. at Seattle, Wash., since 1943, has been promoted to the position of assistant superintendent. He reports to Charles Terrell, vice president in charge of operations. Mr. Monson joined Puget Sound Power as a student engineer in 1939, becoming an executive office clerk in 1941 and junior engineer in 1942.

Carter B. Withers has been appointed superintendent of the new $12,000,000 Willow Island power generating station of Monongahela Power Co. near St. Mary's, W. Va. The station is nearing completion.

Wilbert D. Gorman, illuminating engineer, Hartford Electric Light Co., Hartford, Conn., has retired after 40 years of service. Mr. Gorman plans to establish a consulting illuminating engineering office in Hartford. He was guest of honor at a dinner of the Connecticut section of the Illuminating Engineering Society on Feb. 24, attended by about 100 lighting engineers from eastern utility and manufacturing companies. Mr. Gorman has been a regional vice president of IES.

Ralph E. Gale has been appointed by President T. E. Roach of the Idaho Power Co. as his assistant. Mr. Gale has been sales manager of the utility since 1936. He joined the company 25 years ago. Mr. Gale will continue to have supervision of company sales, industrial promotion, and the research programs, particularly in the field of chemurgy. He has been executive secretary of the Idaho Chemurgic Council since it was created in 1941.

J. Paul Brown has been appointed acting manager of the residential and commercial division, sales department, Alabama Power Co. Mr. Brown has been merchandise sales director since 1945. He started with the Alabama utility in 1924 as merchandise salesman in Tuscaloosa when the company's merchandise activity was in its formative period.

George D. Hall has been appointed head of the wholesale sales division of the Boston Edison Co. and Edward W. Colbert, head of the company's trade relations division, new business department.

George F. Dequine has been appointed general superintendent of transmission and distribution for the Indiana & Michigan Electric Co., with general offices in Ft. Wayne. Mr. Dequine has been with the company 25 years, all spent with the South Bend division. Prior to his association with I&M, he held positions with the Madison Gas & Electric Co., Wisconsin Power & Light Co. and Beloit Water, Gas & Electric Co.

J. S. Newbold, test superintendent of the Cape Fear steam electric generating plant of the Carolina Power & Light Co. since 1946, has been appointed superintendent of the company's steam electric generating plant now under construction near Lumberton, N. C.

Robert W. Cranston has been appointed general superintendent of substations for West Penn Power Co., Pittsburgh. Since 1938 he has been superintendent of all the substations in the main areas served by the company.

Mr. Cranston joined West Penn in 1914 at Washington, Pa. The following year he was transferred to engineering work and substation design in West Penn's Pittsburgh office. In 1917, he was named assistant superintendent of substations for the company's territories B and C and in 1923 superintendent for these territories.

James T. Lawson, electrical operating engineer in the electric generation department, Public Service Electric and Gas Co. since 1931, has retired after more than 51 years' service with Public Service and predecessor companies.

Employed as a student engineer by the Hudson Electric Light Co., Feb. 1, 1898, Mr. Lawson worked successively, for the North Hudson Light, Heat, and Power Co.; United Electric Co. of New Jersey; Jersey City, Hoboken and Paterson Street Railway Co. and North Hudson County Street Railway Co., predecessor companies of Public Service, in various electrical supervisory capacities.

In 1903 he came with Public Service and, in 1906, was assigned to Marion Generating Station, Jersey City, as chief electrician. In 1912 he was transferred to the General Office, Newark, as system operator in which capacity he served until 1918 when he became assistant to the general superintendent of generation.

You Can Lose Only Once

(*Continued from page* 179)

tric power must be responsive to the will of the people it serves. If it is in the public interest to control private power through local regulation, then it is equally in the public interest to take control of federal power out of the hands of the bureaucrats in Washington and place it in the hands of the people it serves.

It will be very difficult to appraise and master the complex problems of engineering, finance, administration, and of commercial, governmental and public relations that are involved in such an undertaking. Yet I know that there are in this industry enough men with the boldness and the resourcefulness necessary to work out a program that would be economically sound, feasible, and so clearly in the public interest as to find acceptance with the people. The power industry must call upon those men to organize *now* and devise a practical program to that end.

It seems to me that we would get help from powerful sources for any such plan. Certainly the regulatory commissions should lend aid. The municipal utilities, power cooperatives and other nonfederal power groups have as much to lose as we do, if the trend toward nationalization continues. Today, public power is in a fair way to become the preserve of the Department of the Interior.

Those in Washington who talk about Interior becoming the public power holding company are not talking in jest. And remember, when the British and the French governments nationalized their power industries, they swallowed up every municipal operation along with the private. That is the pattern for our planners.

Above all else, before the drive toward nationalization of power can be halted, a

united industry must offer the public a fair, concrete and workable proposal as the alternative to the promises of the federal planners. We cannot fight something with nothing. We must develop a positive program that we can be *for;* and not continue always to be *against* the programs of others. I cannot help but feel that a bold and aggressive industry with unity and courageous leadership could have forestalled some, at least, of the earlier federal projects, such as TVA and REA.

The economic growth of large areas is jeopardized right now by the absence of a clearly defined federal power policy. Until there is such a policy, the question remains as to how far the government should go in power supply. The real issue is not how far, but whether the federal government ever should be in the power business at all.

I believe that we can win public support for a positive program. I believe that such a program is in the public interest. I believe that we cannot stand still and survive as a free industry. I believe that "freedom is not a heritage, but a conquest for each generation to win or lose."

Public Relations and Our Fifth Freedom

(*Continued from page* 211)

less work," "something for nothing" policy—security through some sort of federal pyramid club—all a mess of collectivist pottage at the expense of individual freedom and national security.

What those good folks in our plants and factories need is the truth in terms they can understand. What they both need, and want, desperately is leadership from the man they work for—leadership to the truth that freedom is the fearful price they will pay for the Utopia of the collectivists.

These workers must be shown and they can be shown, what makes this economic system of theirs tick, what is slowing down and what threatens to stop it completely. They can be shown—and they must be—in terms of the policies, practices and experiences of the individual company for which they work.

Those workers of ours will understand the fundamentals of their American enterprise system if they are shown day-to-day demonstrations of the underlying principles right in the plant in which they work.

They can be mustered to resist philosophies, policies and proposals which would undermine the enterprise system and destroy their freedom if they can visualize the effect of such proposals on their own company and their own job.

There's a job for every last one of us managers of business.

That's the kind of public relations I'm talking about.

That's not only good public relations. It's sound—and Oh! so vitally needed—leadership.

If you and I and every other manager of enterprise, or any substantial number of us, will give that kind of leadership—

We'll keep enterprise free—and
We'll keep America free!

CONVENTIONS AND MEETINGS

JULY

12-14 American Society of Civil Engineers, Mexico City, Mexico.

AUGUST

23-26 American Institute of Electrical Engineers, Pacific General Meeting, Fairmont Hotel, San Francisco, Calif.

SEPTEMBER

11-14 Rocky Mountain Electrical League, Fall Convention, Stanley Hotel, Estes Park, Colo.
16-17 The Maryland Utilities Association, Fall Conference, Cavalier Hotel, Virginia Beach, Va.
16-17 Public Utilities Association of the Virginias, Greenbrier Hotel, White Sulphur Springs, W. Va.
28-30 Indiana Electric Association, Annual Convention, French Lick Springs Hotel, French Lick Springs, Ind.

OCTOBER

3-5 Electrical Equipment Committee, EEI, Schenectady, N. Y.
17-21 American Institute of Electrical Engineers, Midwest General Meeting, Netherland Plaza Hotel, Cincinnati, Ohio.
25-27 Pacific Coast Electrical Association, Inc., Fall Conference, Hotel Californian, Fresno, Calif.
31-Nov. 1 Transmission and Distribution Committee, Lord Baltimore Hotel, Baltimore, Md.

Union Electric Co. of Missouri Wins Charles A. Coffin Award

(*Continued from page* 172)

cent unfavorable, an improvement of 7 per cent; and 4 per cent doubtful, an improvement of 7 per cent."

Presentation of the Award to Union Electric was made at the closing meeting of the Convention, Thursday evening, June 2, in ceremonies conducted by President Acker. The donor of the Award, the Charles A. Coffin Foundation, was represented by Philip Reed, Chairman of General Electric Company.

In accepting the Award, C. E. Michel, vice president of Union Electric, declared on behalf of President J. W. McAfee, who was unable to attend the ceremony, that "all of us are proud to be the recipients of the Coffin Award for 1948. We are particularly glad," he went on to say, "that the selection this year was made for community relations. The objective of all of us in the electric utility industry is effective and conscientious service to our communities. Good community relations result from public awareness of our desire to render fine service at fair prices. Next to the actual rendering of that service, we regard informing the public about it as the most important function of our company. Therefore, this award is a double pleasure to us."

Most highly prized of the electric industry's recognitions of merit, the Charles A. Coffin Award was established twenty-seven years ago by the Charles A. Coffin Foundation, as a tribute to the memory of the late Charles A. Coffin, founder of the General Electric Company, and to honor each year the "distinguished contribution" of an electric company.

Consisting of a gold medal for the winning company, and $1,000 for the employees' benefit fund, the Coffin Award has acquired national prominence in the public mind as well as in the industry for its significance as an acclamation for conscientious service and progressive development.

EDISON ELECTRIC INSTITUTE OFFICERS AND COMMITTEES

OFFICERS

E. R. ACKER, *President*.....Central Hudson Gas & Electric Corp., Poughkeepsie, N. Y.
ELMER L. LINDSETH, *Vice-President*...The Cleveland Electric Illuminating Co., Cleveland, Ohio
H. S. BENNION, *Vice-President and Managing Director*....420 Lexington Ave., New York, N. Y.
K. B. CRUMB, *Treasurer*.....American Gas & Electric Service Corp., New York, N. Y.
MAE B. WOODS, *Secretary*.....420 Lexington Avenue, New York, N. Y.

BOARD OF DIRECTORS

(Terms Expiring 1949)

W. C. BECKJORD.....The Cincinnati Gas & Electric Co., Cincinnati, Ohio
W. H. BURKE.....Ebasco Services Inc., New York, N. Y.
H. C. CUMMINS.....Northern States Power Co., Minneapolis, Minn.
W. G. B. EULER.....Pacific Gas and Electric Co., San Francisco, Cal.
A. H. KEHOE.....Consolidated Edison Company of New York, Inc., New York, N. Y.
ELMER L. LINDSETH.....The Cleveland Electric Illuminating Co., Cleveland, Ohio
P. H. MCCANCE.....Duquesne Light Co., Pittsburgh, Pa.
C. E. MICHEL.....Union Electric Company of Missouri, St. Louis, Mo.
ALBERT T. O'NEILL.....Buffalo Niagara Electric Corp., Buffalo, N. Y.
J. W. PARKER.....The Detroit Edison Co., Detroit, Mich.
H. T. PRITCHARD.....Indianapolis Power & Light Co., Indianapolis, Ind.
K. M. ROBINSON.....The Washington Water Power Co., Spokane, Wash.
R. L. THOMAS.....Consolidated Gas Electric Light & Power Co., Baltimore, Md.
WILLIAM WEBSTER.....New England Electric System, Boston, Mass.

(Terms Expiring 1950)

E. R. ACKER.....Central Hudson Gas & Electric Corp., Poughkeepsie, N. Y.
AUSTIN D. BARNEY.....The Hartford Electric Light Co., Hartford, Conn.
REX I. BROWN.....Mississippi Power & Light Co., Jackson, Miss.
HANCE H. CLELAND.....San Diego Gas & Electric Co., San Diego, Calif.
E. W. DOEBLER.....Long Island Lighting Co., Mineola, N. Y.
J. A. LONGLEY.....Central Illinois Light Co., Peoria, Ill.
H. B. MUNSELL.....Kansas City Power & Light Co., Kansas City, Mo.
R. S. NELSON.....Gulf States Utilities Co., Beaumont, Texas
C. E. OAKES.....Pennsylvania Power & Light Co., Allentown, Pa.
B. F. PICKARD.....Interstate Power Co., Dubuque, Iowa
MCGREGOR SMITH.....Florida Power & Light Co., Miami, Fla.
A. C. SPURR.....Monongahela Power Co., Fairmont, W. Va.
O. TITUS.....Metropolitan Edison Co., Reading, Pa.

(Terms Expiring 1951)

J. T. BARRON.....Public Service Electric and Gas Co., Newark, N. J.
J. M. BARRY.....Alabama Power Co., Birmingham. Ala.
GEORGE M. GADSBY.....Utah Power and Light Co., Salt Lake City, Utah
D. E. KARN.....Consumers Power Co., Jackson, Mich.
J. E. LOISEAU.....Public Service Company of Colorado, Denver, Colo.
PAUL B. MCKEE.....Pacific Power and Light Co., Portland, Ore.
C. B. MCMANUS.....Georgia Power Co., Atlanta, Ga.
S. C. MCMEEKIN.....South Carolina Electric & Gas Co., Columbia, S. C.
GROVER C. NEFF.....Wisconsin Power and Light Co., Madison, Wis.
P. H. POWERS.....West Penn Power Co., Pittsburgh, Pa.
HAROLD QUINTON.....Southern California Edison Co., Los Angeles, Cal.
J. B. THOMAS.....Texas Electric Service Co., Fort Worth, Texas
JOHN T. WARD.....Boston Edison Co., Boston, Mass.
W. F. WYMAN.....Central Maine Power Co., Augusta, Maine

(Executive Committee)

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